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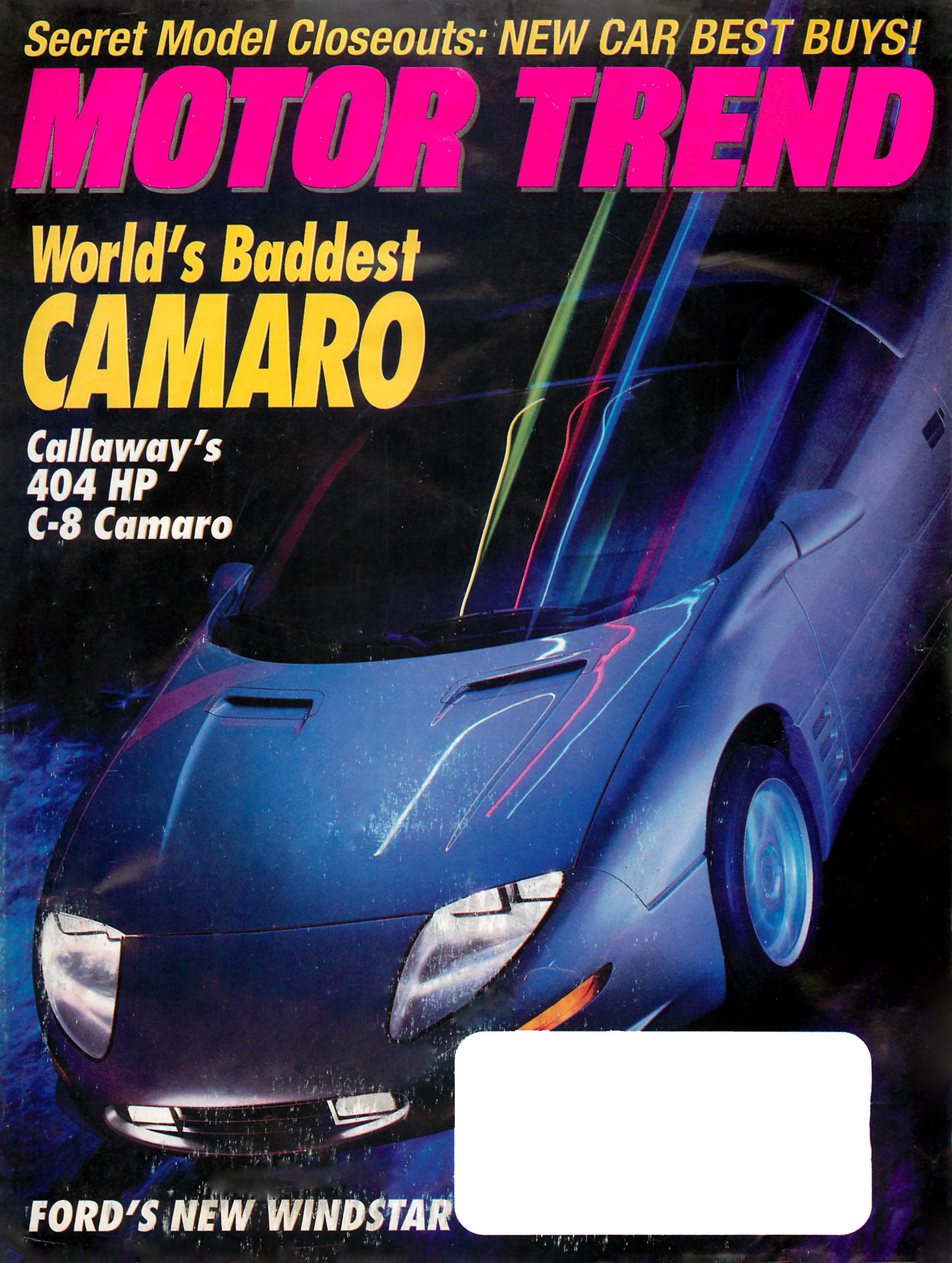

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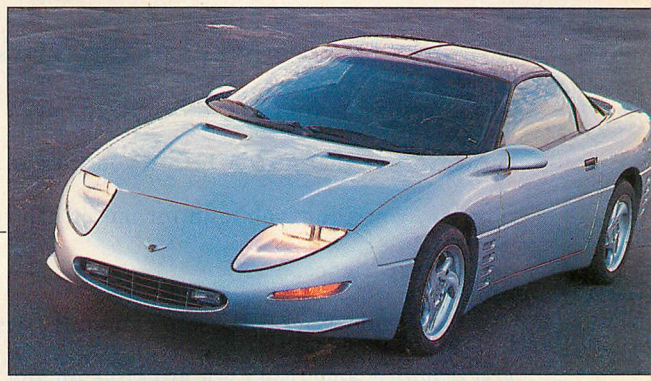


TRENDS

Headliner • 14
Toyota's new flagship will be made in the U.S.

International Report • 18
Porsche's revamped 911 Cabriolet takes wing

Detroit Report • 20
The debut of Chevrolet's new Lumina and Monte Carlo

ROAD TESTS

Callaway SuperNatural Camaro C-8 • 30
ZR-1 performance at the price of a Corvette LT-1

30

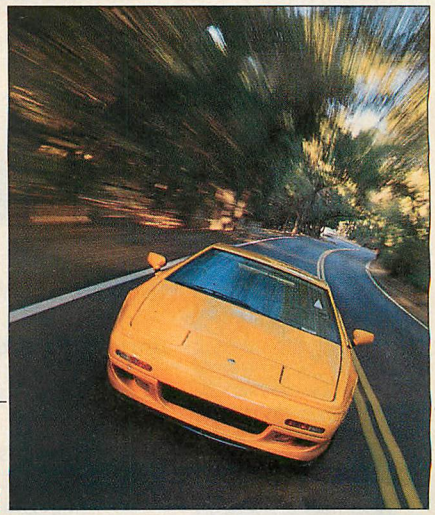
Honda Passport • 38
Honda enters the sport/utility market—with a little help from its friends

Thunder Wagons • 42
BMW 530i Touring vs. Mercedes-Benz E320 Wagon vs. Volvo 850 Sportwagon Turbo

Pontiac Firehawk • 50
Hamburger cooks up a hot dog

Toyota Previa LE S/C • 86
What does this minivan have in common with a top-fuel dragster? (Hint: it's not cupholders)

Chevrolet Beretta Z26 • 92
The Camaro's little brother—but at what cost?



DRIVING IMPRESSION

Lotus Esprit Turbo S4 • 62
Colin Chapman's fiberglass supercar has evolved into an affordable exotic

62

Ford Windstar LX • 68
An all-new giant of a minivan

FEATURES

The Final Roundup • 54
We rope the most endangered '94s before they disappear

Dodge IROC • 72
The still-secret replacement for the Dodge Daytona turns out to be the race car of the champions

68

When Things Go Wrong • 80
A guide for negotiating the customer-complaint maze

Alternative-Fuel Vehicles • 111
The latest from the clean-fuel front

RETROSPECT

'53-73 Cadillac Eldorado • 104
An American class-act from start to "fin"-ish

LONG-TERM REPORTS

Wrapup • 98
Mazda RX-7

Update • 101
Lexus GS 300, Lincoln Mark VIII, Subaru Impreza LS AWD wagon

DEPARTMENTS

RIGHT OF WAY • 8
U.S. vs. Them, Part II

LETTERS • 10

CAR CARE • 116
Underhood cleanup

TECH Q&A • 120
The motorized world

INVESTMENTS• 122
Watch your winch

MOTORSPORTS • 124
Oval weapons school

ROAD TEST REVIEW • 128
Numerical nirvana

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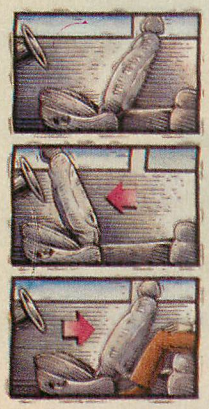

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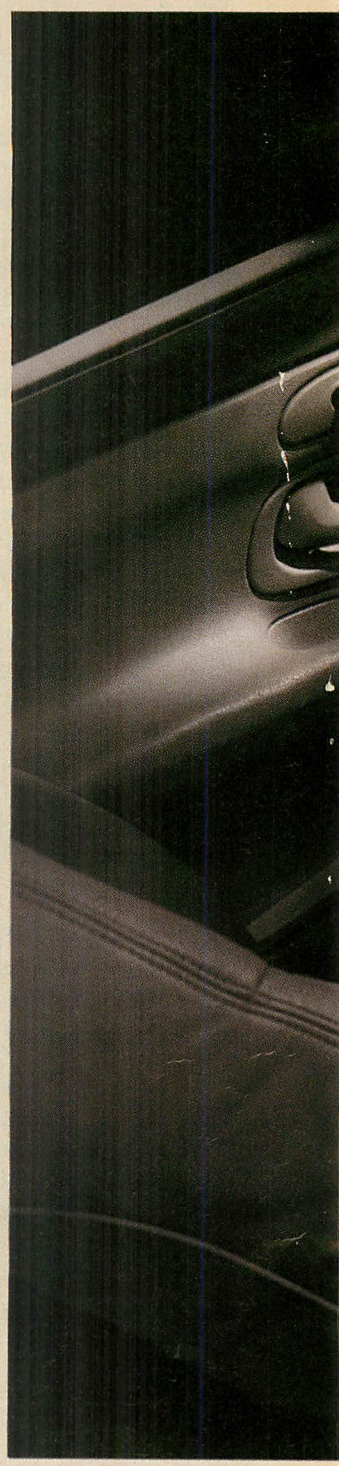

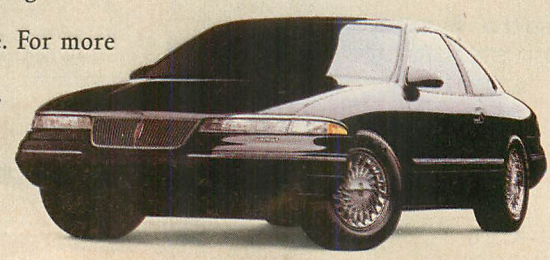

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RIGHT OF WAY

JEFF KARR

U.S. VERSUS THEM REVISITED

Back in December, I used this space to explore the differences, both real and imagined, between domestic and imported cars. The quality gap is getting ever narrower, yet at the same time an unfavorable yen/dollar exchange rate is driving up the prices of Japanese cars. The domestic car builders are seeing a significant increase in market share after years of watching imports encroach on vehicle segments that were traditionally Big Three turf.

And the momentum is building even further in favor of the domestics. New cars are in the pipeline that will put the Japanese, in particular, in a tight spot. The new Dodge Neon, for example, is poised to take a hefty chunk out of the small-car market, with its combination of roominess, power, safety, and—most important—low price. We've talked a great deal about the Oldsmobile Aurora here in *Motor Trend*, and you've also seen a positive review of the Buick Riviera on these pages. Both cars challenge the traditional strongholds of the import brands—the luxury segment populated by Japanese second-channel offerings and many of the Europeans. Ford has some good stuff coming, too. The Ford Contour and Mercury Mystique are European designs built in America, and should revitalize the middle of the company's lineup. All these new domestic contenders are viable alternatives loaded with competitive engineering—not just hollow claims.

There are other signs of quality improvement on the domestic front. GM and Toyota have signed an unprecedented deal that'll see '96 Chevrolet Cavaliers sold with Toyota badges through Toyota's dealer network in Japan. The cars will be the next-generation Cavaliers, built with right-hand drive, and will comply with all the required Japanese specifications. There will be a production run of 20,000 units per year, and the vehicles will bypass the usual complex inspections normally inflicted on other cars imported to Japan.

This development has been interpreted differently on both sides of the Pacific. The GM people paint it as a ringing endorsement of the skyrocketing quality of their upcoming new products: If the new Cavalier wasn't a great car, why would Toyota buy it to sell as its own?

THE MOMENTUM IS BUILDING EVEN FURTHER IN FAVOR OF THE DOMESTICS. NEW CARS ARE IN THE PIPELINE THAT WILL PUT THE JAPANESE, IN PARTICULAR, IN A TIGHT SPOT.

In the meantime, the Japanese spin-doctors have the Cavalier deal pegged as merely a political move, designed to be a visible gesture toward reducing the tremendous $50-billion annual trade surplus Japan has with the U.S.

The way I see it, everybody's right. Toyota has as good a quality reputation as any auto maker in the world. Trade balance or not, it's hard to imagine it risking its reputation by putting its name on a car of inadequate quality. Conversely (or maybe even perversely), Toyota, with all its resources, doesn't really need to buy, then re-sell another 20,000 cars a year. Nor are its domestic dealers crying out for a small supply of rebadged Cavaliers.

Ultimately, this politically motivated gesture serves as a back-handed affirmation of the rising quality of U.S. domestic products—and it comes from one of the most knowledgeable and critical sources imaginable. The competition. MT

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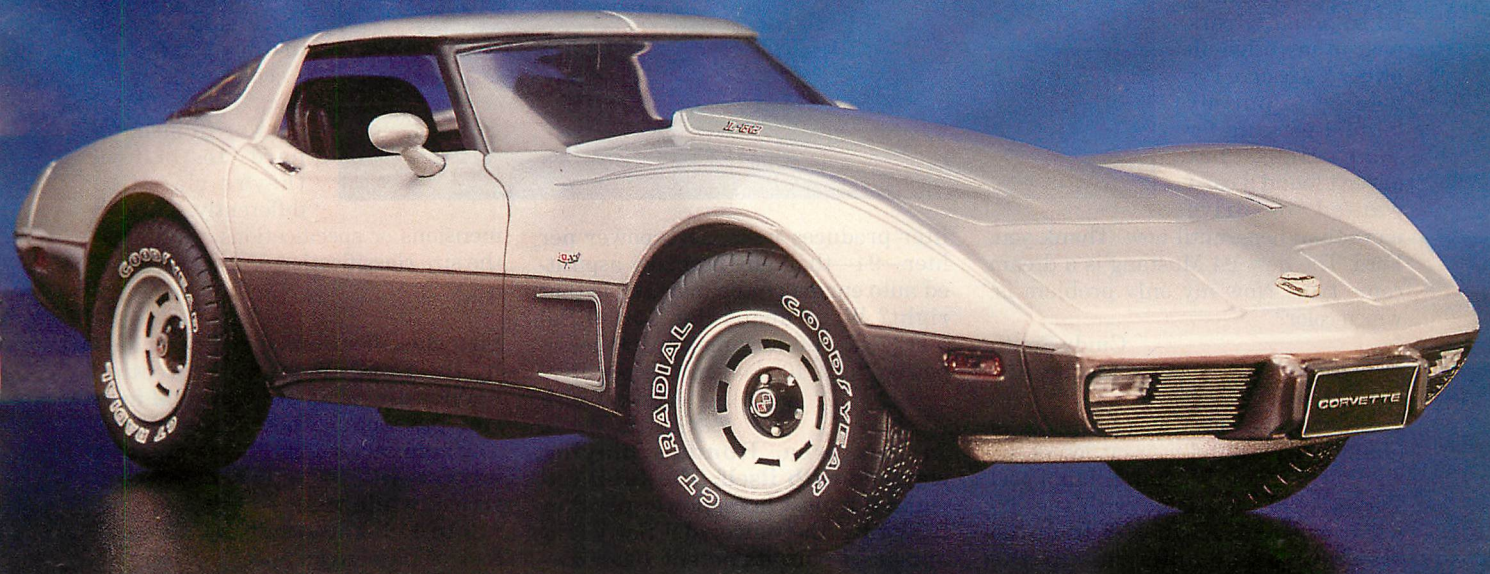

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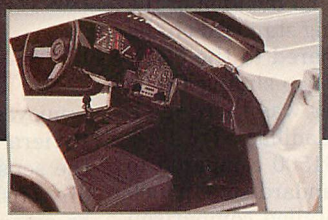

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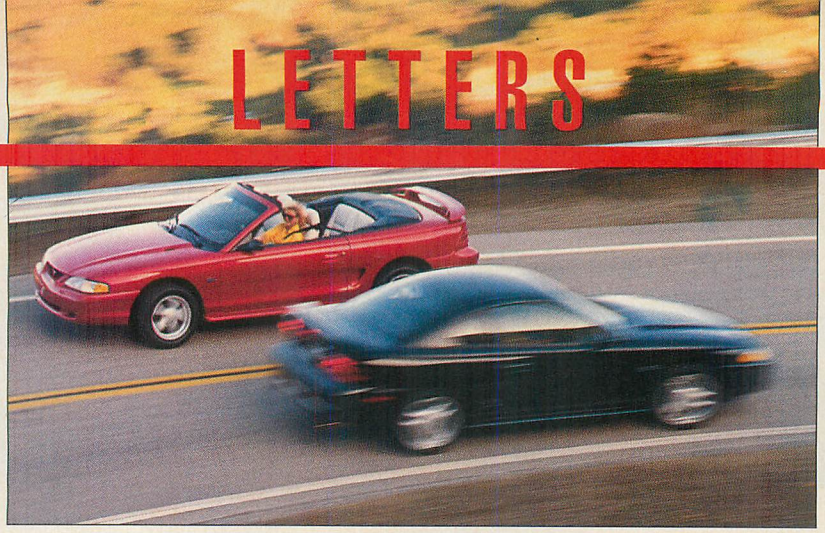
LETTERS



Re: Car of the Year

Finally! A Mustang I'd be proud to park next to my original-owner '68 coupe. I've wanted to put my faithful pony up for some time, but haven't found a car I wanted to drive more than her—until now. Thank you, Ford. The new '94 Mustang is a dream come true. Now my only problem is, which color?

Cindy Smith
Mobile, Ala.

Great choice for Car of the Year (Jan. '94). Ford did a great job of designing the new Mustang, but I feel Ford should have gone with the 32-valve 4.6-liter DOHC V-8 from the Mark VIII and pumped up the horsepower. When will Ford put the modular V-8 in the Mustang, and with how much horsepower?

Ford Fan
San Francisco, Calif.

More power is coming for the Mustang. This spring, we'll see a Cobra model that'll sport the GT-40-influenced version of the 5.0 and should be good for about 235 horses. We don't expect the modular V-8 to appear until the '96 model year, but that should boost output into the upper 200s, close to the Mark VIII's 280.—Ed.

As a former owner of an '85 Mustang GT, I'd say that the new GT's style is quite an improvement over the outgoing version. But if there's any real weakness in the new design, my vote would be against the rear spoiler, which looks as if it was an afterthought. Aside from this, I believe Ford has another winner. When the more powerful 4.6-liter finally replaces the old-tech 5.0, I may once again be tempted to buy a Mustang GT.

T.F. Robbins
Chantilly, Va.

Comparing Comparisons

Your article, "Acura Integra GS-R vs. Ford Probe GT," says, "Acura can make the claim that the GS-R's 1.8-liter produces more horsepower per liter—94—than any normally aspirated auto engine on the market." Is that right? What about the '94 del Sol VTEC? Its 1.6-liter makes 160-horsepower; that's 100 horsepower per liter.

Jessica Welsh
Seattle, Wash.

In this area, Honda's playing leapfrog with itself. The GS-R did claim the most horsepower-per-liter title until the newer del Sol VTEC appeared with its potent 100-horsepower-per-liter four banger.—Ed.

Motor Trend comparison test reports are generally complete and well rounded. However, I've noticed one consistent oversight: The sunroof. For example, there was no mention of the power moonroof being standard on the Integra GS-R compared to the $600-plus option for the top-sliding Probe GT sunroof. Neither was there mention of the factory Cadillac STS' glass sunroof option at $1500 compared to the BMW 540i's standard steel panel. In addition, the detailed comparison between the Accord EX and Taurus LX made no mention that a sunroof even exists for these two cars. Considering that the price for the two vehicles differs by less than $600 as tested, the fact that sunroofs are standard on the Accord EX and a $1030 option for the Taurus should qualify as a legitimate feature when comparing the two.

Bill North
Webasto Sunroofs, Inc.

Sunroofs, like any costly feature, are an important consideration in determining the value of one car versus another. That's why when a test car is equipped with an optional sunroof, you'll find the price listed under Options in the General section of the spec chart. When car shopping, some homework with the appropriate brochures and a careful breakdown of the window stickers can pay big dividends.—Ed.

In your Ford Taurus LX vs. Honda Accord EX article, I noticed the Taurus is classified as a mid-size car and the Accord as a compact. They seem so similar in size it's hard to believe they're classified differently. What dimensions or specifications are used in the size classification of cars?

Bob Light
Troy, Mich.

Size classifications are determined by the Environmental Protection Agency and are based on total interior passenger and cargo volume. The compact category encompasses any car with 100 to 109 cubic feet of space, while the mid-size range is 110 to 119. The Accord's 92.5 cubic feet of passenger and 13 cubic feet of cargo space total 105.5, making it a compact. The Taurus' stats of 100.3 and 18, totaling 118.3, make it a mid-size. Thus you can also see how even a 1-cubic-foot difference could cause two cars to be in separate size classes.—Ed.

Odds and Ends

I enjoyed the articles on the '95 Buick Riviera and its ancestors, especially the sensational '63-65 models, which are considered by many enthusiasts to be among the most beautiful in automotive history. Ross and Tune both describe the Riviera as dating back to '63. For younger readers, Buick actually introduced the marque in 1949 with the stunning Roadmaster Riviera two-door hardtop coupe, which is still an eye-catcher today.

Leland J. Guetschow
Manitowoc, Wis.

It's true that the Riviera name was first used as a Roadmaster model designation, but the Riviera, as its own car line, didn't appear until '63.—Ed.

The "whopping $1400" for the back window of a '93 GMC Suburban SLE (Oct. '93) caught the attention of GM Service Parts Operations, and we went to work to find out what happened. We discovered that our suggested list price is $581—substantially lower than the $1400 mentioned. Fur-

ther investigation showed that the insurance estimating guides indicate the National Auto Glass Specifications (NAGS) price at $1389.60. We strive to maintain competitive prices on our products, and we hope you'll let your readers know that GM's suggested price for this glass is $581, and the $1400 price belongs to NAGS.

Kathy Bommarito
GM Service Parts Operations
General Motors Corp.
Detroit, Mich.

The December review of our new-and-improved '94 Grand Caravan was a great piece highlighting most of the significant improvements we've made to continue Chrysler's minivan safety leadership position. In addition to the numerous safety, comfort, and performance refinements, our platform team also expended considerable effort to greatly improve the interior quietness of the vehicles. A short back-to-back drive in a '93 and a '94 vehicle would immediately demonstrate this. Also, Grand Caravan towing capacity doesn't "top out at 2000 pounds." Rather, it's 3500 pounds. Those extra 1500 pounds can make quite a difference.

Tom Kowaleski, Director
Product, Platform & Technology
Public Relations
Chrysler Corporation
Auburn Hills, Mich.

While watching a movie called "The Wraith" on TV recently, I saw a car that really caught my eye. It was called a Dodge Turbo Interceptor. Has there ever been a review done on this car, or was it just a concept car that never went into production?

George M. Cox
Rome, N.Y.

The car you saw was a concept car built by Chrysler specifically for the film. —Ed.

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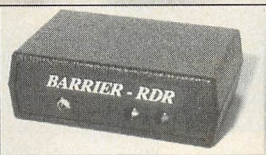

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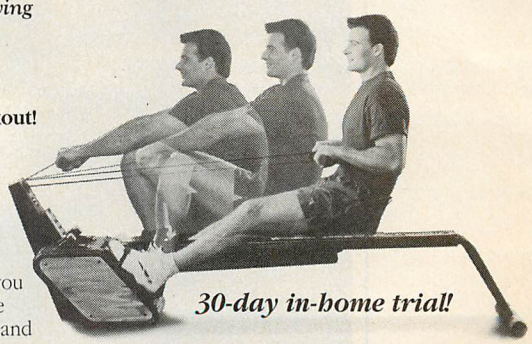

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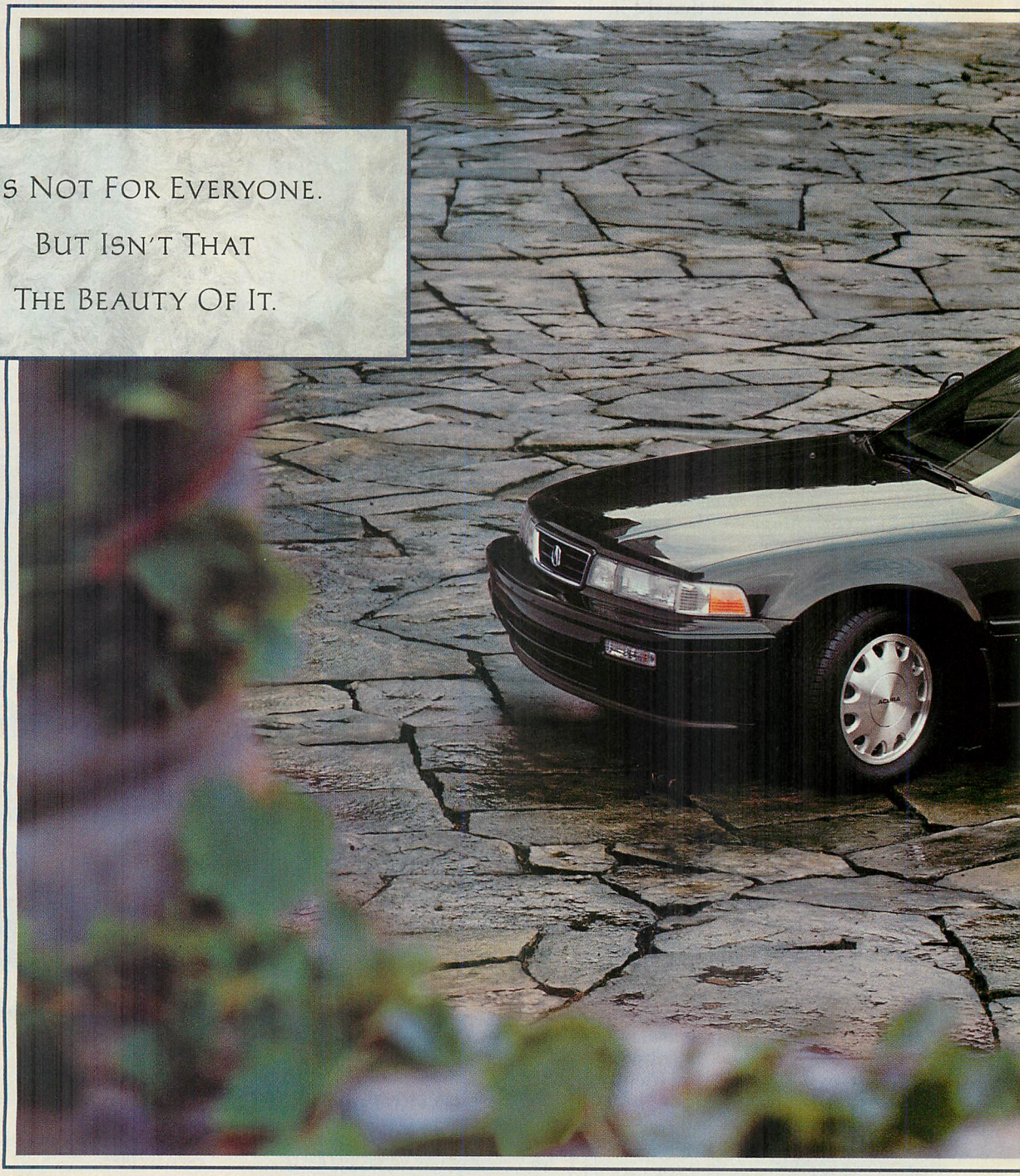

It's one thing to be wanted by all. It's quite another to be obtainable by only a few. The Acura Vigor GS is decidedly the latter. With a pronounced bias toward luxury, the Vigor GS is a study in elegance. It abounds with refinements, from the leather-trimmed seats to the burnished close-grained wood accents on the instrument panel and doors. Its four-

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wheel independent double-wishbone suspension gives it the responsive agility you demand of a performance automobile. And it has the safety features, such as driver's and front passenger's air bags, you would expect from a car of this caliber. Which can be a beautiful thing in itself.

SOME THINGS ARE WORTH THE PRICE.

ACURA

TRENDS

EDITED BY BOB NAGY

NEW AVALON TO BE TOYOTA FLAGSHIP

Here's the first official look at Toyota's new Avalon sedan, which will come on line this October as the premier offering of Toyota's U.S. fleet. Intended to fill the slot vacated by the Cressida, it's based on a stretched version of the current Camry platform. The Avalon's exterior styling can best be described as clean but conservative. Its front quarters are reminiscent of a Lexus LS 400, while the rear is more directly related to the Camry sedan.

The Avalon has a wheelbase of 107.1 inches and an overall length of 190.2 inches, 4.0 and 2.4 inches greater, respectively, than those of the vehicle from which it was derived. The familiar MacStrut/twin-lateral-link independent suspension carries over, and its 205/65HR15 tires are the same size used on the Camry V-6. With an interior volume of 105.4 cubic feet, a generous 15.4-cubic-foot trunk, and an optional front split-bench seat, the Avalon will be the first Japanese model to qualify as a large car in the eyes of the EPA.

The sole engine will be a slightly modified version of the 3.0-liter DOHC fuel-injected aluminum V-6 currently used in the Camry. No specific output figures have been released as yet; however, there's reason to believe it'll produce somewhat more than the 188 horsepower and 203 pound-feet of torque it does in Toyota's best-selling mid-size sedan. The standard—and only—transmission will be the 4ECTi electronically controlled four-speed automatic, also common to the Camry.

Although our first encounter with the Avalon was confined to a mere "looking impression," we were able to gain some feeling for the character of this new vehicle. Inside, there's an undeniable feeling of spaciousness. But while head and leg room are abundant in the outboard seating positions, the middle passenger, front or rear, still tends to get caught in a bit of a squeeze play. As one would expect of a Toyota product, basic ergonomics are quite good and the instrumentation legible. Toyota plans to offer the Avalon in two distinct trim levels. Cloth upholstery will be standard fare, with leather in the upline car.

To be built in Toyota's Georgetown, Kentucky, assembly plant (which will also supply all of the engines), the new Avalon will have the highest domestic content of any current Toyota product. Still, there's no final word as to whether it'll carry EPA import or domestic status. Standard safety features include dual airbags, side-impact door beams, and four-wheel disc brakes with optional ABS. Toyota declined to offer any demographic or pricing information, but judging from the package, we'd expect most Avalon buyers to be successful middle-age professionals and the car to carry a base price somewhere between $25,000-$30,000.

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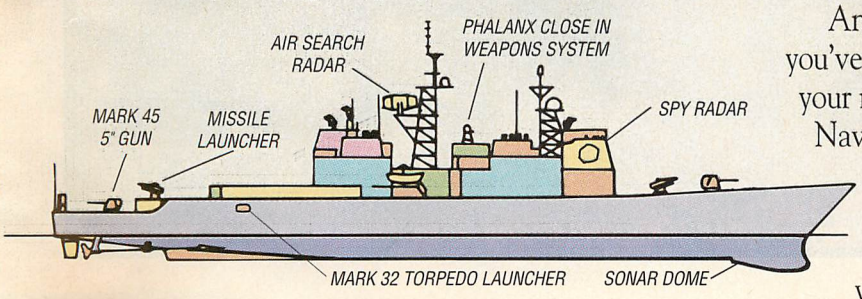

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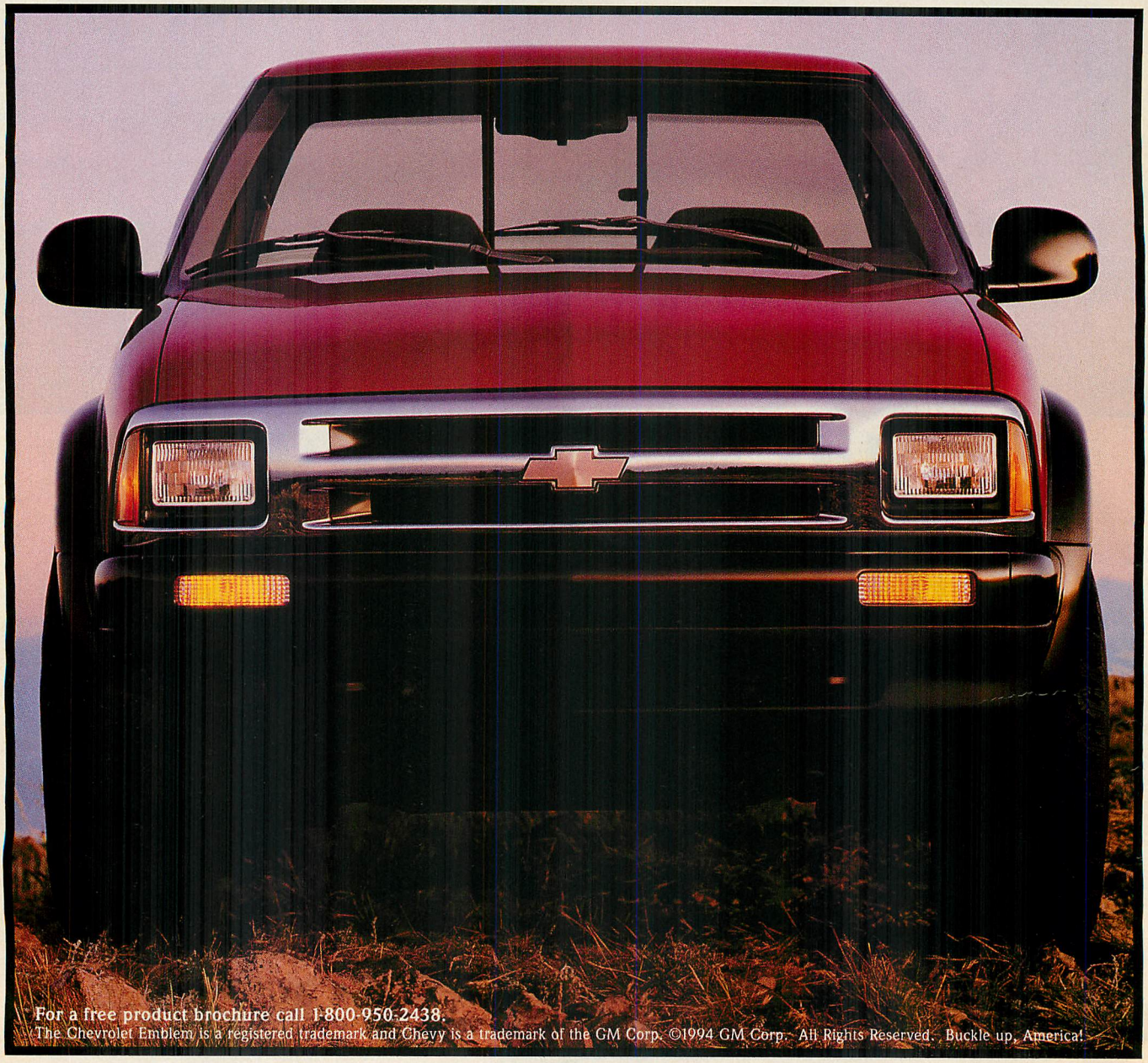

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The New Chevy S-Series
LIKE A ROCK

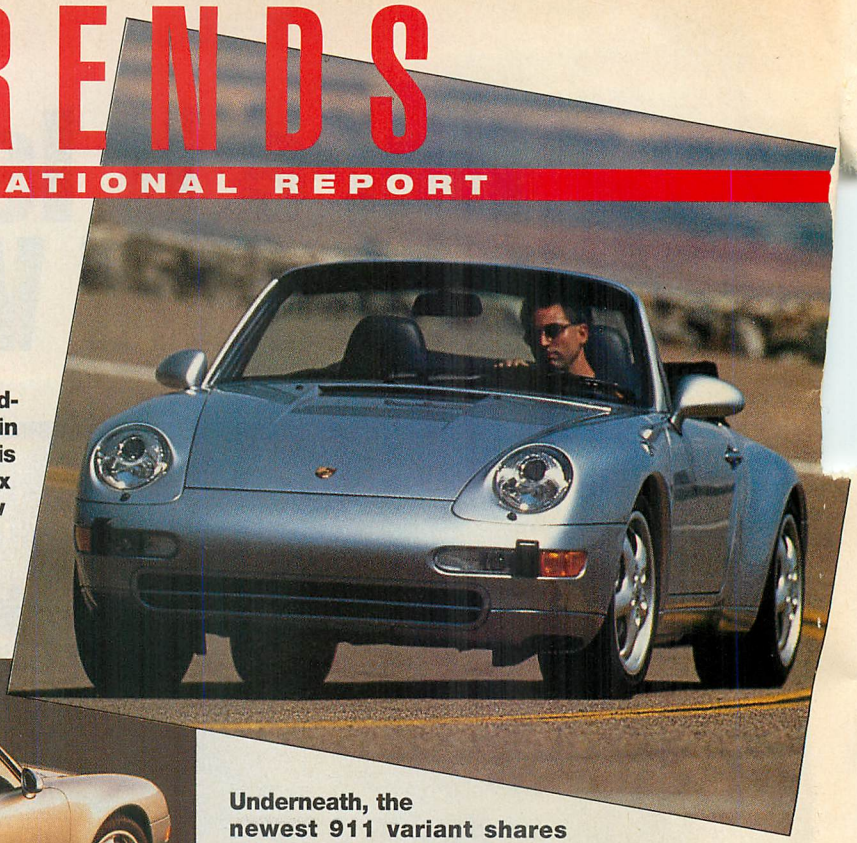
TRENDS

INTERNATIONAL REPORT

Edited by Phillip Bingham
with Michael Cotton

PORSCHE PREVIEWS 911 CABRIOLET

The open-air version of Porsche's revamped-for-'95 911 Carrera is set to arrive here in early spring. Like the coupe, the new cabrio is powered by a 270-horsepower 3.6-liter flat-six engine that can be paired with either the new six-speed manual gearbox or a revised version of the Tiptronic automatic that's been reprogrammed to take advantage of the extra power while delivering better fuel economy.



Underneath, the newest 911 variant shares suspension hardware with the coupe, including the new rear multilink setup. The Carrera Cabriolet features a power top mechanism with an automatic latching/unlatching feature. Its price had yet to be announced at presstime, but, based on the previous model, expect to see the drop-top carry about a $9000 premium and a sticker around $69,000.

MONDEO NAMED EUROPEAN CAR OF THE YEAR

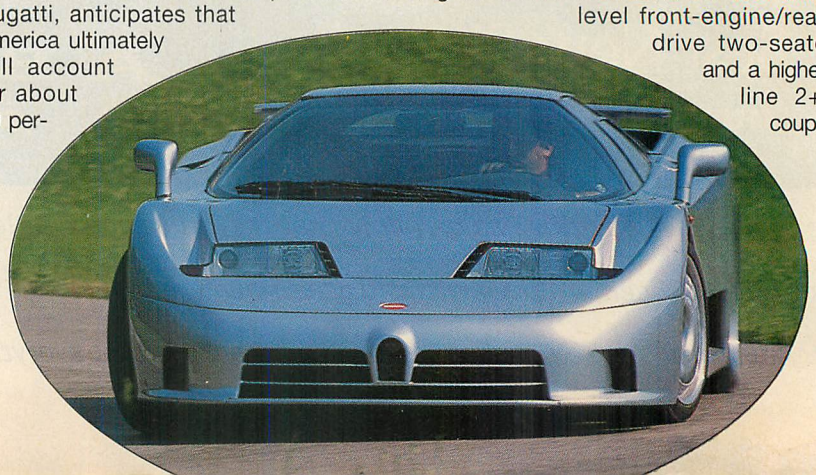
Ford's Mondeo, the "world" car that took $6 billion to bring to market—and reaches U.S. showrooms later this summer as the Ford Contour and Mercury Mystique—has been selected 1994 European Car of the Year. The award's jury of 58 automotive journalists from 20 countries gave the Ford 290 points, just 26 more than Citroën's Xantia.

Mercedes' C-Class placed third with 192 points, ahead of three subcompacts: GM's Vauxhall Corsa (185 points), Renault's Twingo (174), and Peugeot's 306 (108). Other entrants were the Saab 900 (87), Spanish-made Seat Ibiza (64), Rover 600 (33), and Honda Accord (28).

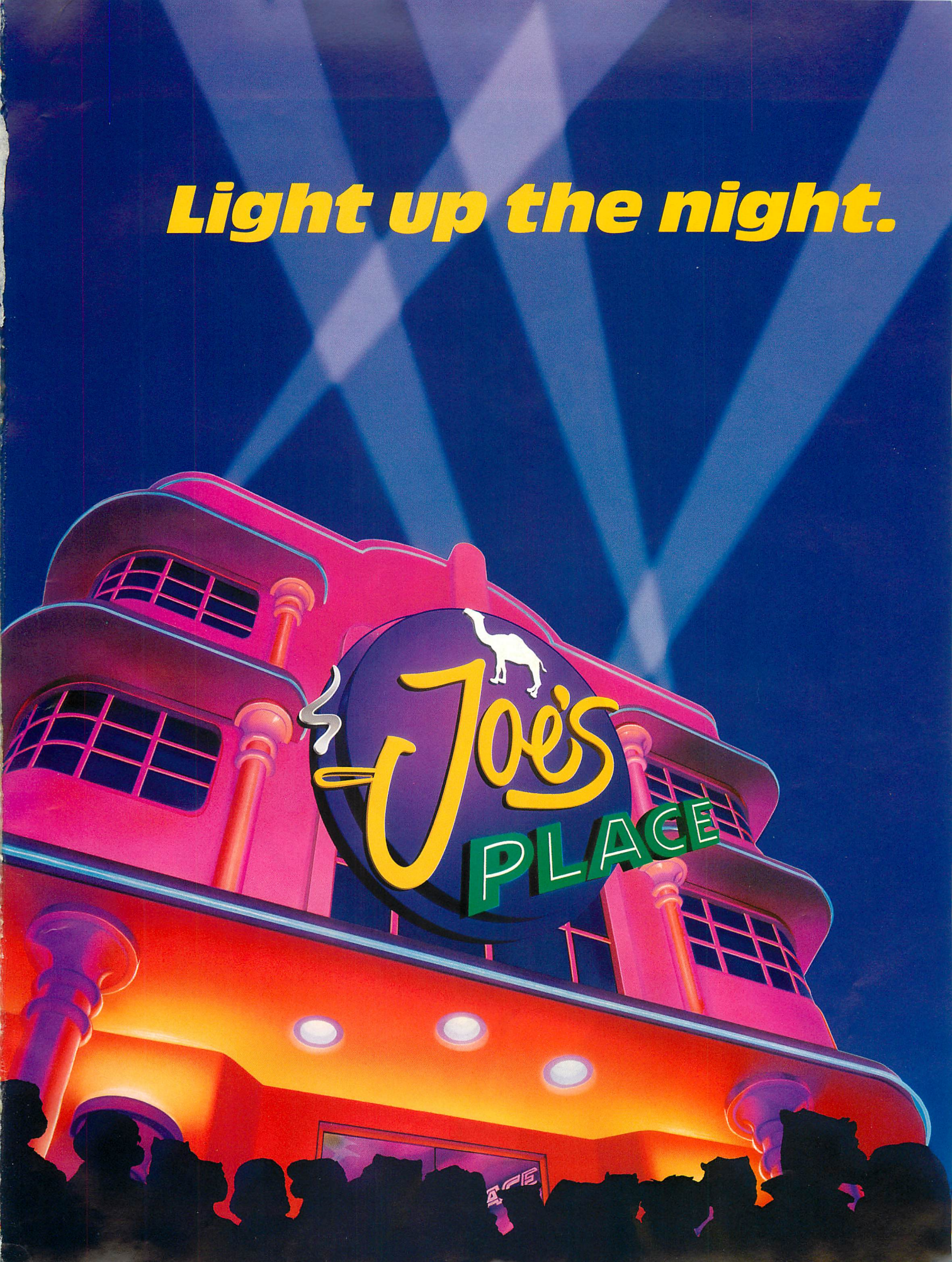
Last year's ECoY title went to the little Nissan Micra, the only Japanese winner since the award's inception in 1964.

BUGATTI COMING TO AMERICA

It didn't take long for the Bugatti buyout of Group Lotus plc to start bearing fruit. Barely three months after the deal was finalized, top executives of both organizations announced bold plans for the future, including the news that the Italian prestige firm would use selected Lotus sales outlets in the U.S. to market its EB110 GT supercar here during the latter half of '94. Shortly thereafter, Bugatti expects to introduce its EB112 sedan here, as well. Dr. Mario Barbieri, executive vice president of Bugatti, anticipates that America ultimately will account for about 30 percent of Bugatti's total projected worldwide annual sales of 600-700 units. Although pricing on these cars is still preliminary, he allowed that, at current exchange rates, the coupe, with its 603-horsepower quad-turbo V-12, likely would run about $360,000, the sedan, with its 454-horse naturally aspirated variant, closer to $250,000. At the same time, Group Lotus Ltd. Managing Director Adrian Palmer confirmed that his organization was exploring the possibility of developing two all-new models: a low-cost entry-level front-engine/rear-drive two-seater and a higher-line 2+2 coupe.



PAUL-HENRI CAHIER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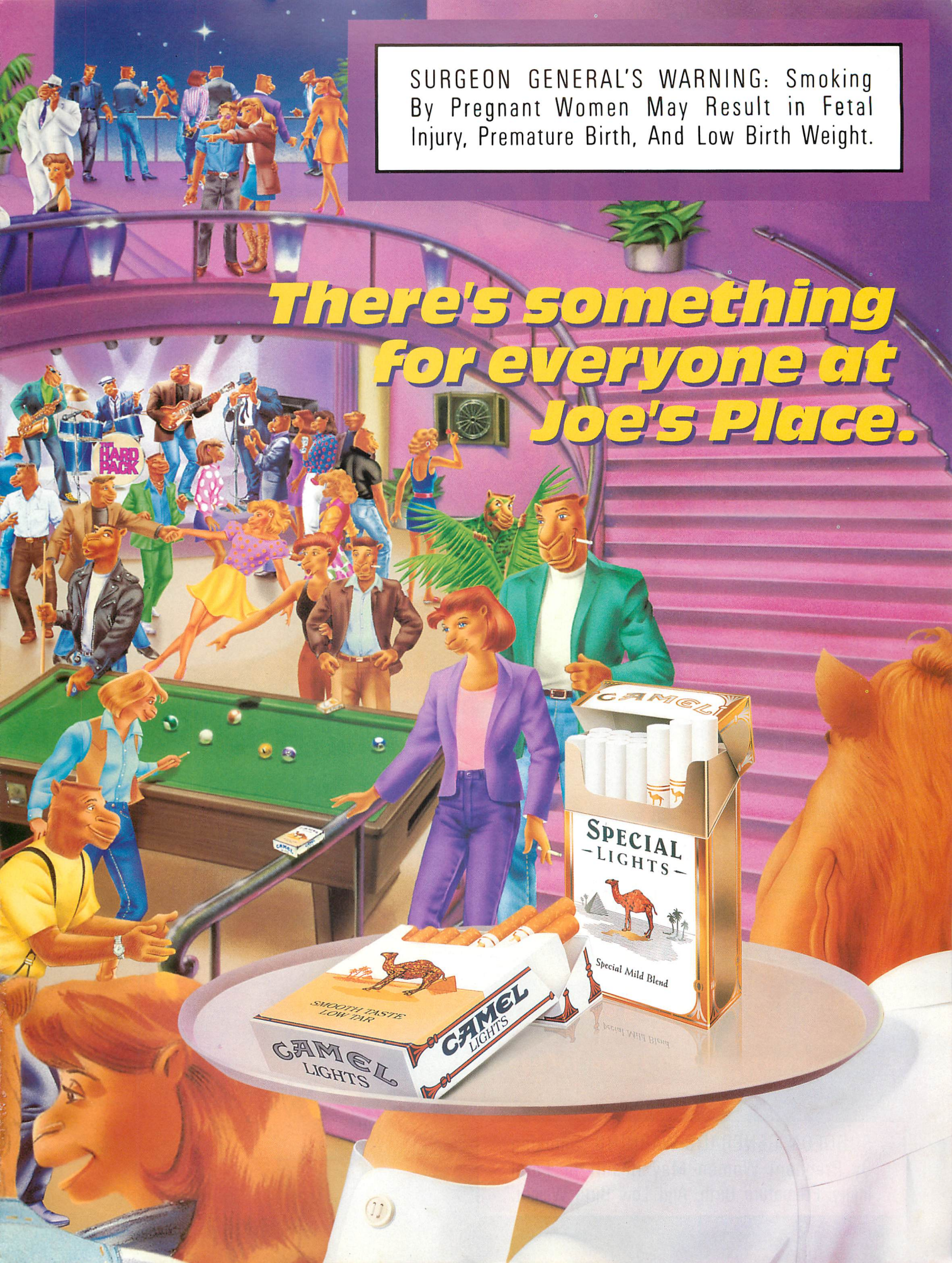
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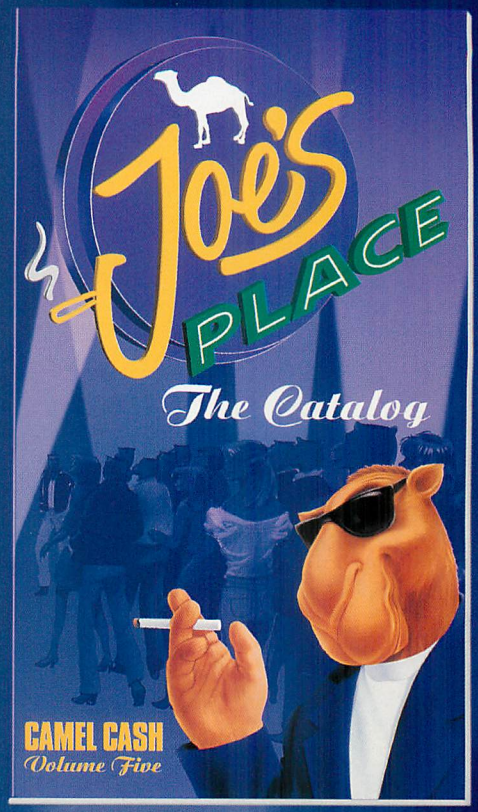

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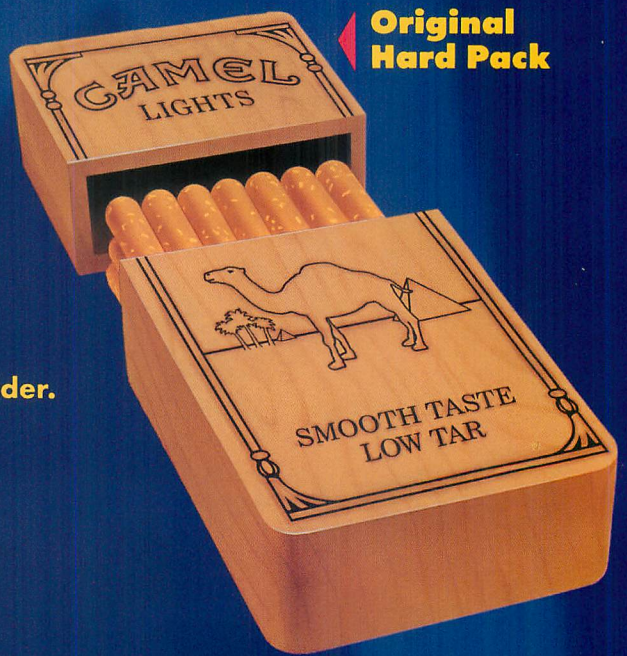

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TRENDS

INTERNA[illegible]RT

LAGONDA LIVES AGAIN

Aston-Martin has revived the Lagonda name with a new line of four-door sedan and station wagon models based on a modified Virage platform. These Lagondas, built at the AML factory in Newport Pagnell, will only be available as conversions—or enhancements as the firm refers to them—on existing customer cars. Prices are steep: $175,000 for the sedan, $185,000 for the wagon—and that's on top of the $172,500 cost of a new Virage 5.3 coupe and $181,500 sticker for a base Shooting Brake.

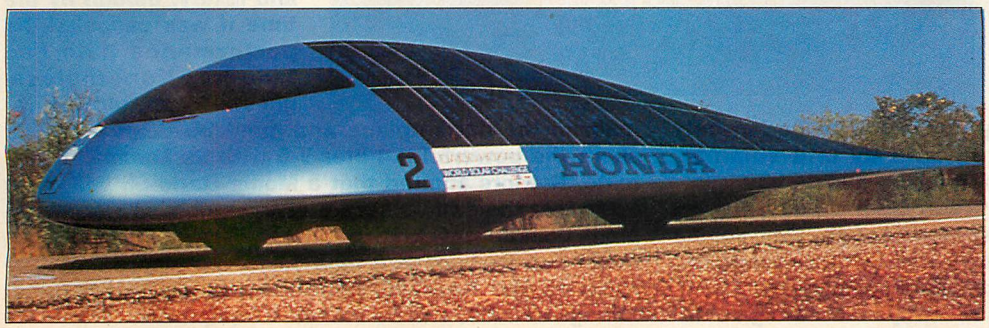
According to AML, 70 percent of these limited-edition Lagondas is new—virtually everything aft of the A-pillar. Along with handcrafted aluminum coachwork, the transformation includes suspension and brake tweaks. Also available, for an additional $42,000, is a 500-horsepower 6.3-liter V-8 in place of the standard 310-horse 5.3-liter. With this upgrade both vehicles claim top speeds of 170 mph. We weren't able to confirm that figure, but a short road trip in the first Shooting Brake showed it most capable of spectacular bursts of straight-line acceleration. Cornering prowess also is quite notable, especially given its 4497-pound curb weight. *—Michael Cotton*

IMPORT NOTES

Power Corrupts: Hyundai founder Chung Ju-Yung so badly wanted to become Korea's president that he spent $60 million on his election campaign—embezzled from Hyundai Group funds. The 78-year-old is now behind bars...**Another Clark Kent:** Jaguar's facelifted XJ6 range, to be unveiled this fall, is expected to include a challenger to BMW's M5. Beneath an understated body, its 4.0-liter AJ6 six-cylinder engine will be supercharged, giving as much power and torque as Jag's 320-horsepower 5.3-liter V-12, but will weigh in—and drink—less.

HONDA'S DREAM SHATTERS ELECTRIC OUTBACK MARK

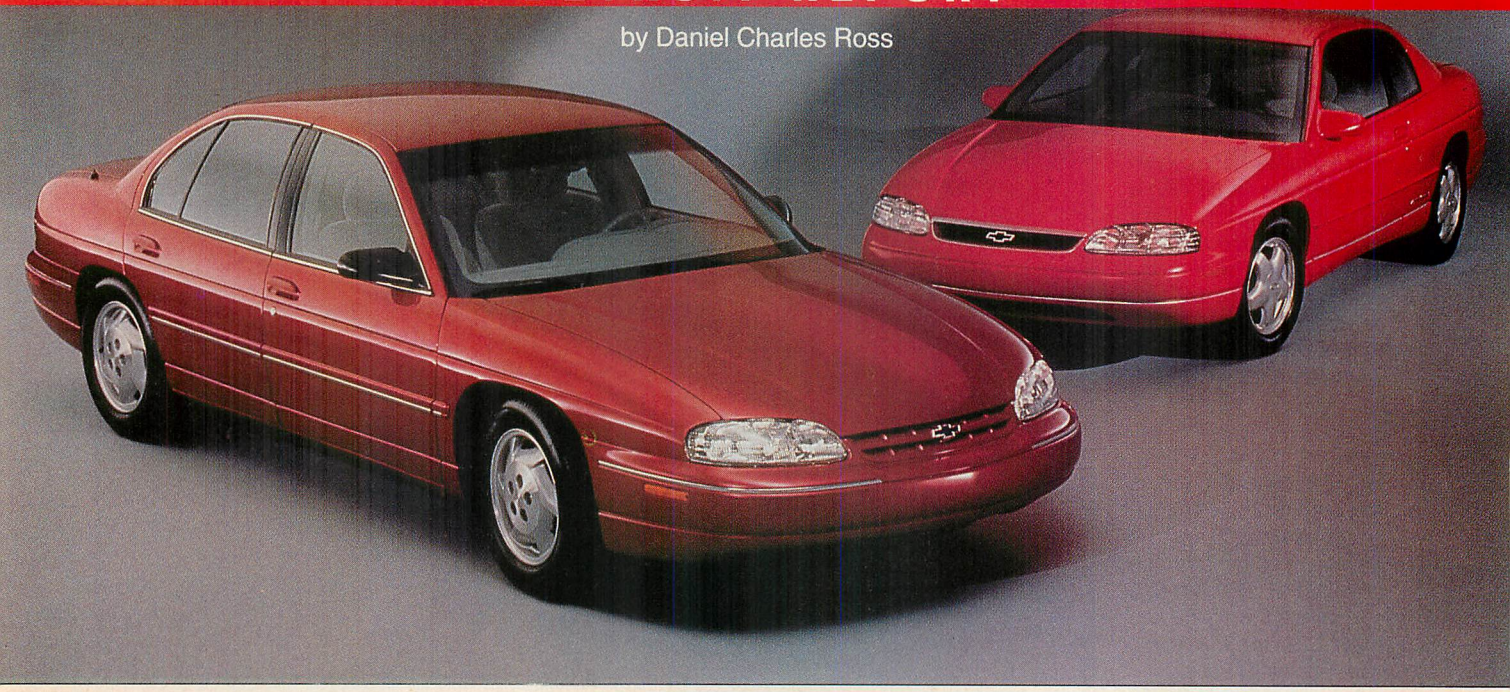
Honda Motor Company's latest electric road warrior, the Dream, handily rolled to victory in the recent World Solar Challenge event, which ranged across the heart of the Australian continent. In avenging a second-place finish in the previous WSC competition held back in '90, the solar-powered three-wheeled Honda Dream took just 35.47 hours to cover the 1870 miles from Darwin to Adelaide, 9.5 hours less than the record established by the Swiss Team Biel three years back. The Dream averaged 52.5 mph, hitting a top speed of 69.6 mph. Team Biel was second, averaging 48.6 mph. Along the way, the Dream also set a new single-day distance mark of 802 kilometers/498.4 miles and eclipsed the absolute average speed mark of 41.57 mph over a 3000-kilometer distance set by GM's Sunraycer in '87. The Dream used a 89.1-square-foot solar cell array to charge 83 silver-zinc battery cells, which in turn powered a single brushless DC motor. Honda also assisted the efforts of the highest-placed U.S. entry, the team from Cal Poly Pomona, which finished eighth. The company intends to apply some of the technology pioneered in its zero-emissions racer to future street cars.



TRENDS

DETROIT REPORT

by Daniel Charles Ross



CLEAN MACHINES: LUMINA AND MONTE CARLO, DUE FOR SPRING DEBUTS

General Motors recently afforded the Wall Street community a sneak peek at some of its key future products for '95, and we were able to obtain a few photographs. GM gives the money crowd periodic confidential looks to reassure them it isn't as set in its ways as the current lineup would suggest (although the General might have saved a bundle by simply giving the bankers subscriptions to *Motor Trend*). The two pivotal products seen here have been appearing in these pages for most of a year. But we offer them now for the first time in true production guise.

The all-new Chevrolet Lumina (Detroit Report, May '93) is expected to be in production by now, with a deliberately slow ramp-up to better assure quality control. The sedan-only lineup is expected to be on sale by mid-summer, badged as '95 models. Top dog in the engine bay is believed to be GM's 3.4-liter "Twin Dual Cam" 24-valve V-6. Used in today's Z34 two-door coupe, this engine yields 200 horsepower at 5000 rpm with a four-speed electronically controlled automatic transmission.

Chevrolet has made strides recently in the design of interior systems, particularly seats. The Lumina is expected to take full advantage of these improvements in a significant upgrade of current fare, including standard dual airbags and anti-lock brakes. (ABS may be optional in price-leader base four-cylinder Luminas.)

A second Chevy on the hook is the Monte Carlo (March '93). It'll be built on the same platform as the next Lumina and differs in exterior appearance chiefly at the front clip; the Monte, however, will be issued only in coupe form. Fans of the previous car liked it for its aura of performance and luxury, though by the time it was canceled, its performance halo had faded. Nonetheless, ghosts of the old car remain in the marketplace and must be dealt with. It'll share the powerful 3.4-liter V-6 with its Lumina stablemate. Rumors abound that a Monte Carlo SS will show up to test the enthusiast waters, possibly with a powerplant boasting over 200 horsepower. If this is true, it might see daylight at a time when the Monte Carlo returns to the NASCAR racing arena. Here, too, dual airbags and ABS will be standard equipment.

TRENDS

DETROIT REPORT

'95 MERCURY MYSTIQUE TO MAKE AUTO SHOWS

JIM DUNNE/POPULAR MECHANICS

Mercury's all-new '95 Mystique, which replaces the current Topaz, will be the first of Ford's CDW27 platformmates unveiled to the public. A first cousin to the award-winning Mondeo (see International Report) already on sale in Europe, the handsome four-door is set to debut at the Chicago Auto Show in February. Its Ford Contour cousin, which will supplant the aging Tempo, officially appears shortly thereafter at the New York Auto Show. Both of these front-drive sedans have 106.5-inch wheelbases and are about 183 inches long. Standard equipment includes dual front airbags. There'll be two engines from which to choose: a 2.0-liter four-cylinder and a 2.5-liter V-6. Both will be matched with a standard four-speed automatic transaxle, but sources indicate a five-speed manual will be available with the V-6. Fuel economy is expected to be in the 29-34 mpg range.

PAUL L. REXRODE

CLOSE-UP WITH THE UNDRAPED TALON

These surveillance views of a literally undraped '95 Diamond-Star coupe illustrate the car's gentle evolution from today's design, with only black-tape camouflage. On this Eagle Talon mule, cat's-eye headlamp modules wrap the front corners into turn-signal/side-marker units. Placed in the bottom-breather air intake below the bumper are twin driving/fog lamps. In the rear view, note the smooth integration of the center high-mounted stoplight with a tastefully restrained spoiler. Power? The best new engine could be the Mitsubishi 2.5-liter twin-cam four-cylinder, believed to produce about 160 horsepower. The current DSM cars built in Illinois are sold as the Eagle Talon, Mitsubishi Eclipse, and Plymouth Laser. The latter variant is expected to disappear when the new generation goes on sale this spring.

BRIEFLY NOTED

Boss Man Returns: Premier auto inker Larry Shinoda is planning an aftermarket "Boss" model of the '94 Ford Mustang, *MT*'s '94 Car of the Year. Shinoda will do the integrated styling modifications, and a "well-known" engineman will optimize the engines...**The Cost of Success:** Buick took an aggressive stance when pricing its all-new '95 Riviera against import competitor numbers. The base car will sticker for $27,632, the supercharged model for about $28,732. According to Buick, a full-dress Riv with everything will go for a suggested $32,756, plus destination of $625...**Me Too, He Said:** Olds announced it will price its new Aurora flagship at $31,995 plus $625 destination...**Staying Home After All:** Finally scotching rumors that it would step outside to a badge-engineered version of the Isuzu Trooper as a Bravada replacement, Olds announced it will offer a new version based on the same GMT330 platform Chevy and GMC will use for their baby "Blazer" models.

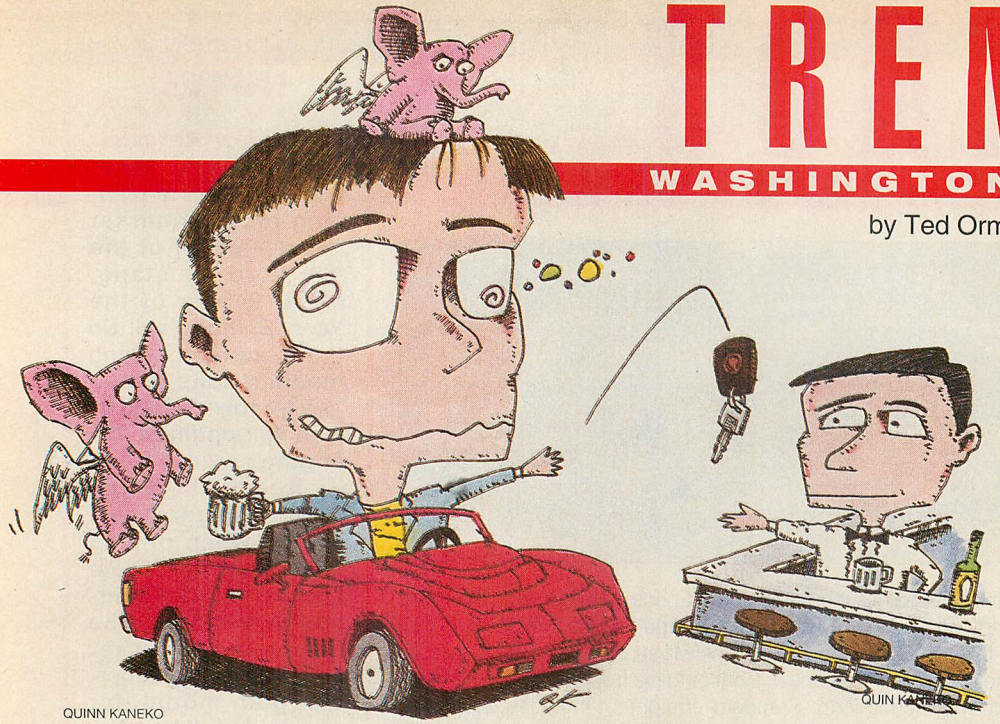
RECESSIVE FORCE

The city of Dearborn, Michigan, home to the Ford Motor Company, is testing 45 Taurus Flexible Fuel Vehicles configured as police cars. The FFV police machines are powered by 3.0-liter V-6 engines optimized to run on M85, a fuel blend consisting of 85 percent methanol and 15 percent gasoline. They also run effectively on any combination of M85 and normal unleaded gasoline. The first 20 cars will be in regular daily patrol rotations for up to three years, and 25 will pull duty as support vehicles. The test will probe fuels as well as hardware: 30 FFVs will operate solely on M85, five on unleaded gasoline, and 10 on a blend of the fuels. Another 25 police FFVs are in use with the Collier County Sheriff Department near Ford's Florida test facility in Naples.

TRENDS

WASHINGTON REPORT

by Ted Orme



QUINN KANEKO

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SOBERING FACTS

Congratulations, America. More and more of us are finally taking to heart the message that drinking and driving are a lousy mix. In fact, alcohol-related traffic fatalities decreased 20 percent between 1990 and 1992, from 22,084 to 17,699, according to the National Highway Traffic Safety Administration. That represents the largest two-year reduction in such fatalities ever recorded.

NHTSA credits this impressive drop to decreased drinking and driving by young motorists, particularly teenagers; fewer driver fatalities at all blood alcohol levels, which means all groups—sippers and guzzlers—generally are drinking and driving less; and tough enforcement measures that have reduced alcohol involvement among repeat offenders.

Although we're on the right track, Transportation Secretary Federico Peña points out that, "Alcohol involvement is still the single largest factor in motor-vehicle deaths and injuries, which, as a whole, cost the nation $14 billion in health care costs each year."

Motorists can expect further educational campaigns and even tougher enforcement measures, including ever-more-popular sobriety checkpoints and increased use of high-tech passive alcohol sensors that allow police to detect any impaired driver who opens his mouth.

VINCE AND LARRY MEET DR. FRANKENSTEIN

Vince and Larry, NHTSA's wisecracking crash-test dummies who promote seatbelt use, must have shuddered at the headlines in the German tabloid *Bild*, which screamed, "Professor Horror—He Did Car Tests Using Dead Children." The story, reported by *The Washington Post*, referred to revelations that the chief of collision testing at the University of Heidelberg was using human corpses in auto crash testing, funded in part by our very own NHTSA.

But that's nothing new. Congressional hearings were held in 1978 to justify government-funded cadaver collision research, and NHTSA currently spends $2.5 million annually on these studies. Always a touchy subject, NHTSA officials defend the practice as "absolutely essential for motor-vehicle safety," because high-tech modern crash dummies can't be built without the data from cadaver testing. The agency also pointed out that only properly donated corpses are used. Igor is not on the NHTSA payroll!

CAPITOL NOTES

A/C Warning: Despite the high cost and growing shortages of R-12 (Freon) coolants, the Mobile Air Conditioning Society is warning motorists and technicians not to fill auto air conditioners with a potentially dangerous substitute coolant called OZ-12. The product, which may have been marketed to as many as 50,000 customers nationwide, is made from a highly flammable blend of propane, butane, and isobutane that can be ignited by the slightest spark. If used to "top off" air-conditioning systems, LP gas-based chemicals contaminate existing coolants, making them impossible to recycle as now required by law. Using flammable coolants in vehicle air conditioners is already illegal in 13 states, and the Environmental Protection Agency is about to issue a federal ban on flammable coolants. Meantime, Florida has issued a consumer alert warning all technicians to ask if customers have used OZ-12 or other flammable coolants, and car owners are asked to volunteer this information when they have their air conditioners serviced... **Metric Marches On:** The plan by the Federal Highway Administration to convert American road signs to the metric system by 1996 is moving forward, thanks to the passage of NAFTA and surprisingly little resistance from state transportation officials, according to *The Wall Street Journal*. The FHA says that with increased trade anticipated from metric Mexico and Canada and resignation setting in that if they don't convert they'll lose federal highway funds, only a few states remain opposed to the new system. But there are still plenty of concerns about the high cost of conversion and the reaction of unprepared motorists. On the bright side, the association of state transportation officials recommends the new highway speed signs be rounded to 110 kph, or 68.2 mph... **Domestic/Import Labeling Proposed:** As ordered under the American Automobile Labeling Act of 1992, NHTSA has proposed a rule to require foreign and domestic content labels on all new passenger vehicles by Oct. 1, 1994. The labels would tell consumers what percentage, by value of the equipment in the vehicle, originated in the U.S. and Canada, and the percentage that originated in other countries; the country of origin of the vehicle's engine and transmission; the country where the vehicle was assembled; and how much of the vehicle's total wholesale price is accounted for by the cost of parts.

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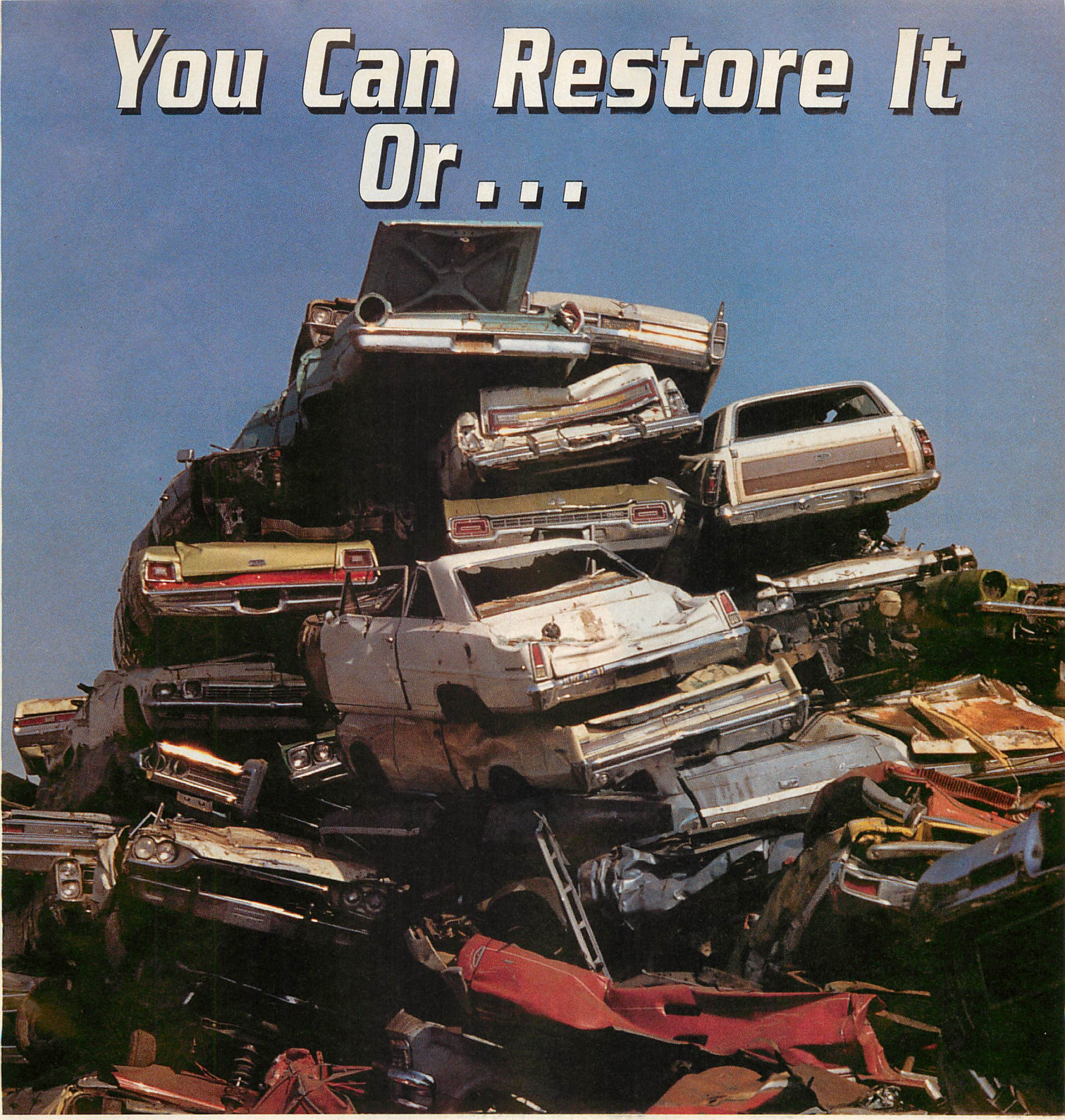

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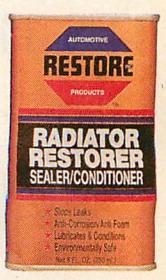

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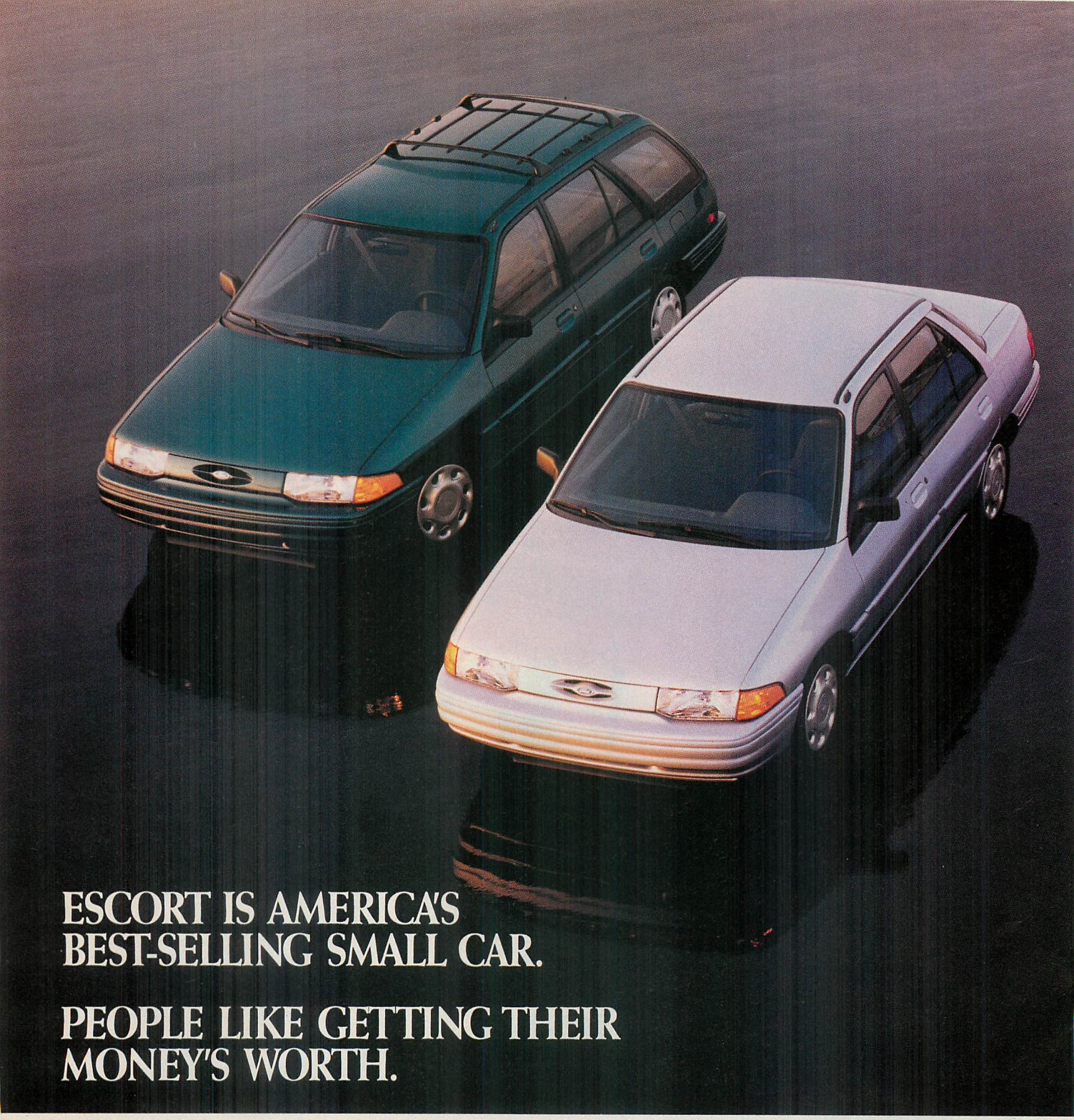

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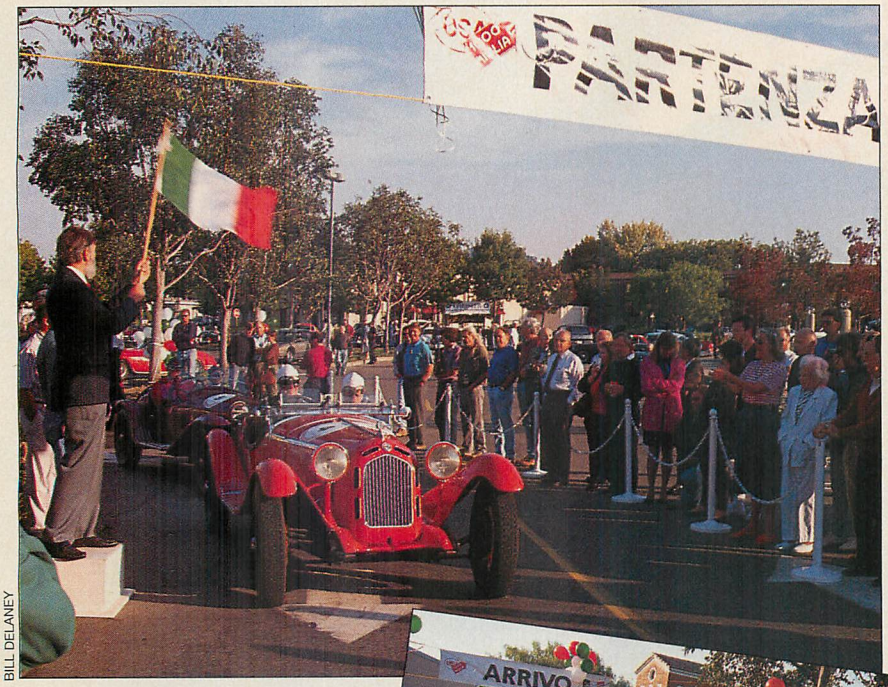
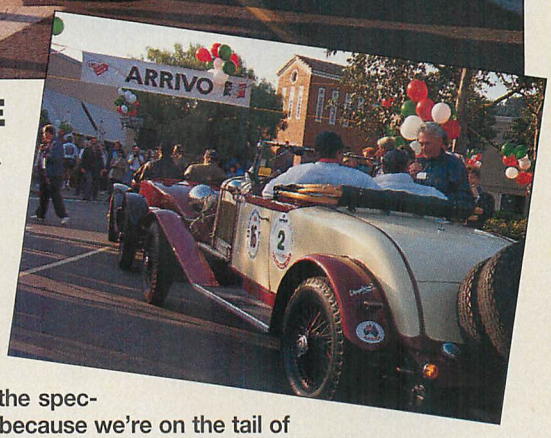
TRENDS

ROVING REPORT



BILL DELANEY



THE CALIFORNIA MILLE

We're behind the wheel of a '56 Porsche Speedster 1600S, consulting our extensive road book and making our way through yet another S-turn. The view ahead is wondrous, not just because of the spectacular natural setting, but also because we're on the tail of a '57 Corvette and a '57 AC Bristol D-2. The '55 D-Type Jaguar, '32 Alfa Romeo 8C 2600 Monza, and '57 Ferrari 250 Testa Rossa in this group are long gone, and somewhere in the miles of winding roads behind are another 38 vintage cars, including a '55 Lancia Aurelia B-20 driven by racing legend Phil Hill and a '52 Citroën Traction Avant piloted by Chrysler President Bob Lutz.

If the imagination were stretched far enough, one could almost picture this to be a slice of Italy and the vehicles in this group participants in the world-famous Mille Miglia. Well, maybe not. But the organizers of this singularly distinctive U.S. touring event, the 1993 California Mille, strived to recreate the Mille Miglia in as much detail as possible, swapping the Adriatic for the Pacific, back-to-back passes in the Apennines for those in the Sierra Nevadas, and 1000 miles of Italian roads for picturesque counterparts in Northern California.

The all-inclusive price of admission for the four-day event, sponsored by Chrysler, Il Fornaio, Far Niente, and Motochron, was $3000 for both driver and co-driver. Also required was ownership of a vintage car that could've qualified to run the Mille Miglia. An interesting aside to the event is a general willingness of most of these vintage-car owners to turn over their passenger seat, or even the steering wheel, to others while they try out someone else's classic iron—allowing fantasy test drives by the hour. If you tired of driving classic cars, there was always the opportunity to try out a Dodge Viper or Intrepid, Eagle Vision, or Jeep Grand Cherokee handily provided by the Chrysler folks.

The California Mille arrives in its fourth iteration with all-new routes this May. Interested? Contact: Amici Americani della Mille Miglia, 2300 16th St., San Francisco, CA 94103; 415/626-2300.

—Ron Cogan

ANOTHER WIN FOR SHELBY

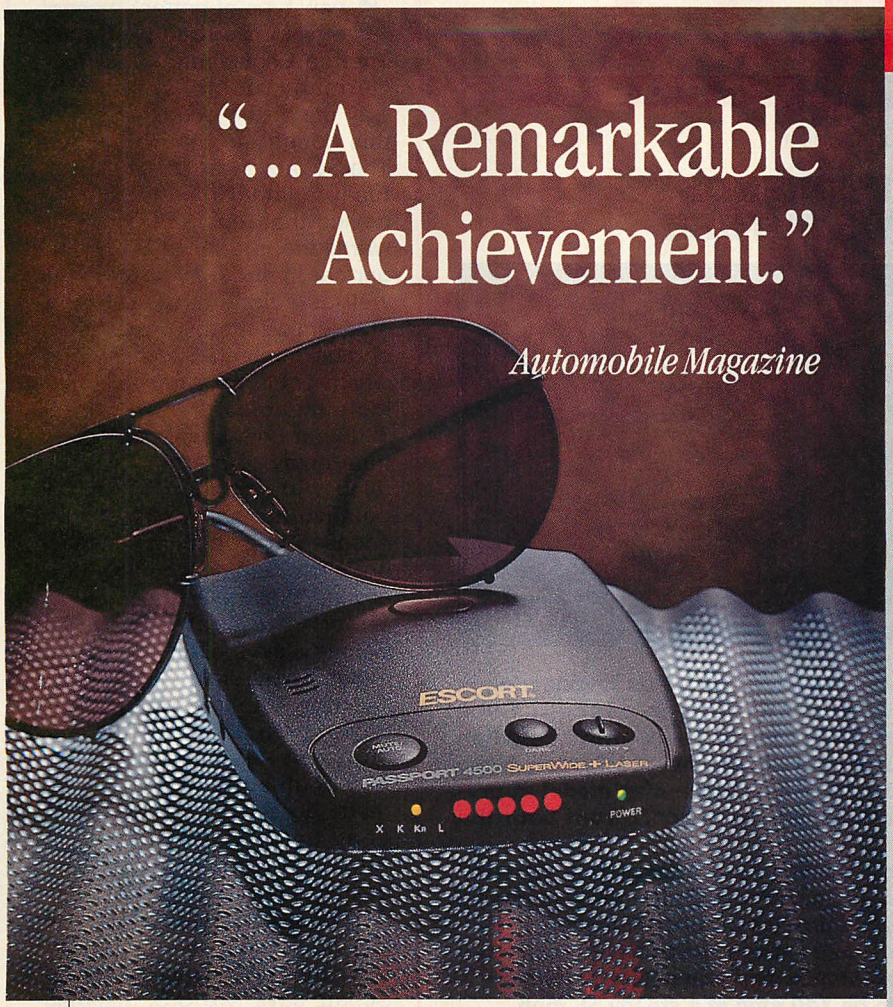
The inimitable Carroll Shelby is a man endeared to many for his automotive genius. His decision to build a limited number of new Cobra 427 S/C race models using many original components warmed the hearts of many car enthusiasts (see "Cobra 427 Reborn," Aug. '92). That he pledged the profits from this venture to a fund that aids those who need but can't afford heart-transplant surgery—which saved his life—made the project even sweeter.

But then a war of words began. Challenges from Brian Angliss, managing director of AC Cars, Ltd. and Autokraft, Ltd., which is producing an AC Mark IV Cobra model in England, created an aura of doubt surrounding Shelby's latest effort. Questions were raised about the authenticity of the original parts being used by Shelby, and amazingly, even about who the original manufacturer of record was for the '60s-era Cobra. Shelby filed suit against Angliss late last year to resolve these questions. The case has now been settled, and the two have issued a joint statement clarifying the results of their litigation.

Among the major points of the agreement is recognition that the Cobra was conceived by Carroll Shelby, that Shelby American was the manufacturer of record from 1962-66, and that the company was responsible for developing and building the race-winning 289 Cobra Daytona Coupe. Also noteworthy is that even though AC Cars built and campaigned Cobras in Europe, it's not acknowledged as having been a manufacturer of Cobras independent of the Shelby organization. The joint statement cites Shelby's current Cobra 427 S/Cs as being fitted with original engines and drivetrains built in the '60s and devoid of AC parts. It also reiterates that they're off-highway cars exempt from federal safety and emissions regulations.

In the end, there's little to dispute regarding Shelby's latest Cobras because they're touched by the man who brought us the originals. This is no insignificant detail, as it's what sets them apart from all others. In many ways, these latest Cobras are as important a body of work as his earlier efforts, and no less deserving of our appreciation and a place in automotive history.

—R.C.



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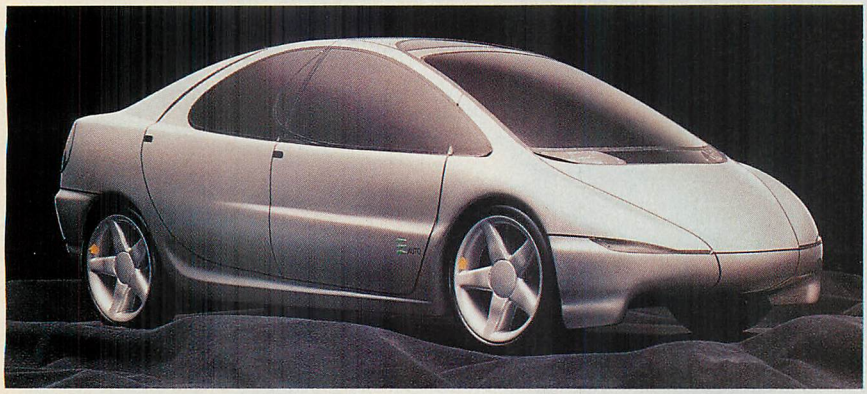
TRENDS

ENVIROMOTIVE REPORT

Edited by Ron Cogan

LOTUS AND FRIENDS LOOK TO THE FUTURE



The latest brainstorm from a consortium headed by Lotus Engineering is the Eureka Project EU742, a.k.a. E-AUTO. This concept for a lightweight, four-passenger urbocar represents a joint effort between Lotus, Volvo Car Corporation, Cranfield University and Impact Center, Alcan International, and APECS. Although the EU742 is only a clay model at present, the E-AUTO program already enjoys partial support from both the British and Swedish governments.

The 157-inch-long EU742 would be propelled by a transversely mounted 31.5-horsepower 600-cubic-centimeter DOHC three-cylinder gasoline engine driving the front wheels through an electronically controlled "intelligent" five-speed automatic. With its super-slippery 0.20 Cd and svelte 1219-pound curb weight, estimated top speed for the aluminum and composite hatchback is 95 mph, with fuel economy projected to be 140 mpg at a steady 56 mph.

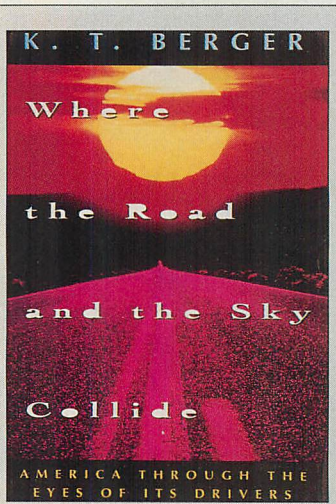
First displayed at the Frankfurt motor show last fall in the hope of enticing additional interest and funding toward building running prototypes and ultimately future series production vehicles, the EU742 could be constructed either by Lotus or under license by another manufacturer. ***—Bob Nagy***

DEVELOPMENTS:

A new type of battery technology introduced by Schatz Thermo Engineering of Munich, Germany, could well find its way under the hoods of cars in this country in the near future. The Schatz "heat battery" is actually a latent thermal storage device that reportedly can fully warm the interior of a passenger car in about 15 seconds, as well as substantially cut cold-start emissions by pre-warming engine coolant. The hardware, which could be supplied to vehicle manufacturers for about $200 per unit, consists of a vertical array of metal envelopes filled with a barium hydroxide octahydrate salt/water mixture encased in a vacuum insulating housing. Engine coolant flows around these envelopes, which absorb the heat it contains. Schatz claims his thermo accumulator can retain this collected thermal energy for up to 72 hours, even at ambient temperatures of -20 degrees Fahrenheit. Volkswagen AG has already agreed to make Schatz's heat battery available as a retrofit through its European dealers by mid-'94, and reportedly plans to phase it in as original equipment worldwide during the next several years. Schatz says two U.S. manufacturers also are currently exploring the possibility of adopting his firm's technology.

BOOK REVIEW

WHERE THE ROAD AND THE SKY COLLIDE: America Through the Eyes of its Drivers, by Kevin and Todd Berger. Henry Holt and Company, 1993. Hardcover; 9½x6½ inches; 368 pages. ISBN: 0-8050-1488-8. $22.50.

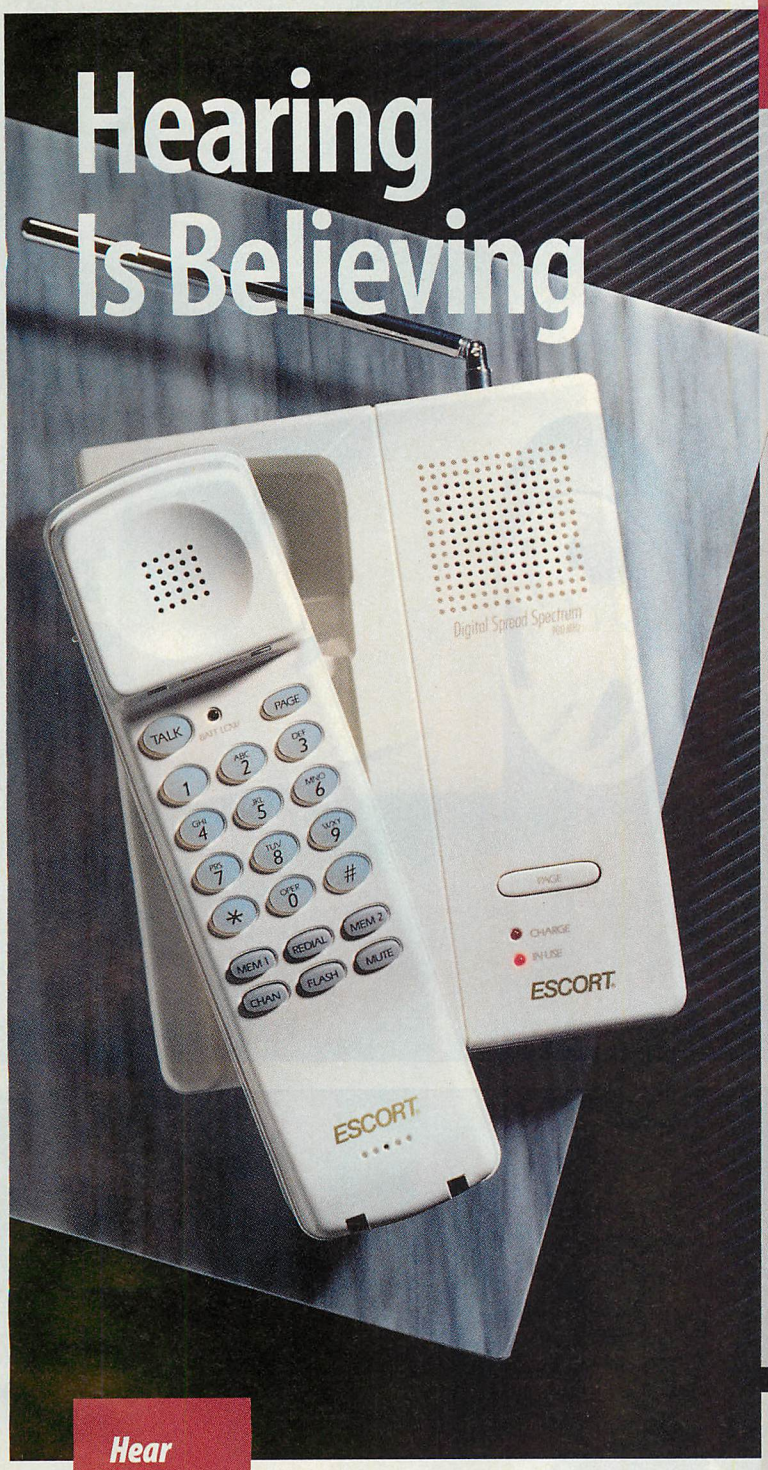


Zap, tilt, click—game over. I've just finished reading this month's book for review, and I'm suffering from the ultimate modern sickness: Information Overload. Yes, this is an extraordinary treatise, containing the story of the automobile in modern American life: past, present, and future, coast to coast. It's a distillate of remarkable experiences, a flood of statistics and other data, the reminiscences of dozens of American drivers and auto-related professionals, including social scientists, highway engineers, and policemen.

So why am I mentally enervated? Perhaps because it's just too much. And all of it—the facts, anecdotes, personal histories, and turbulent ejecta of a billion smoking tailpipes—spreads page after numerous page, with nary an organizing principle in sight. Despite the authors' yeoman efforts in producing this book and its many virtues, the overall effect is numbing.

Who out there is up for the challenge of reading this amazing mare's nest of information? Only the brave, I fear, or the terminally bored. Few car books have attempted so much, dared such scope, and left such twisted and steaming road-kill on the mental highway in the process. Although these authors' first book, "Zen Driving," had much to recommend it, this volume shoots off into the auto-culture stratosphere and keeps you there until you're gasping for breath. A stupendous work, a landmark, certainly. But, please, give us a photo or two so we can stop and rest before forging ahead. *—Gregory Von Dare* MT

Hearing Is Believing



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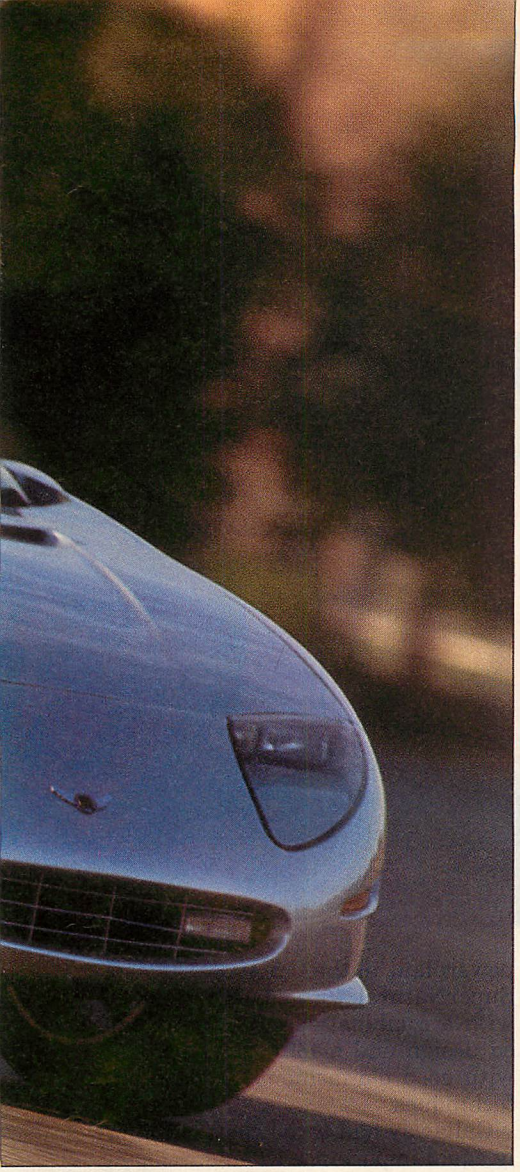
ROAD TEST

COSTS LIKE A CORVETTE LT1, FASTER THAN A ZR-1

by Mac DeMere

PHOTOGRAPHY BY JERRY GARNS



Callaway SuperNatural CAMARO C-8

Reeves Callaway had just opened designer Paul Deutschman's envelope when his intercom buzzed. While examining the Montreal artist's stunning interpretation of the new Camaro, Callaway fielded his first call from Bill Ogle.

"Y'all thinkin' about doin' somethin' with the new Camaro?" drawled the Texas producer of computer video boards and dedicated Camaro nut.

"Yes, as a matter of fact, we are," responded the proper New Englander.

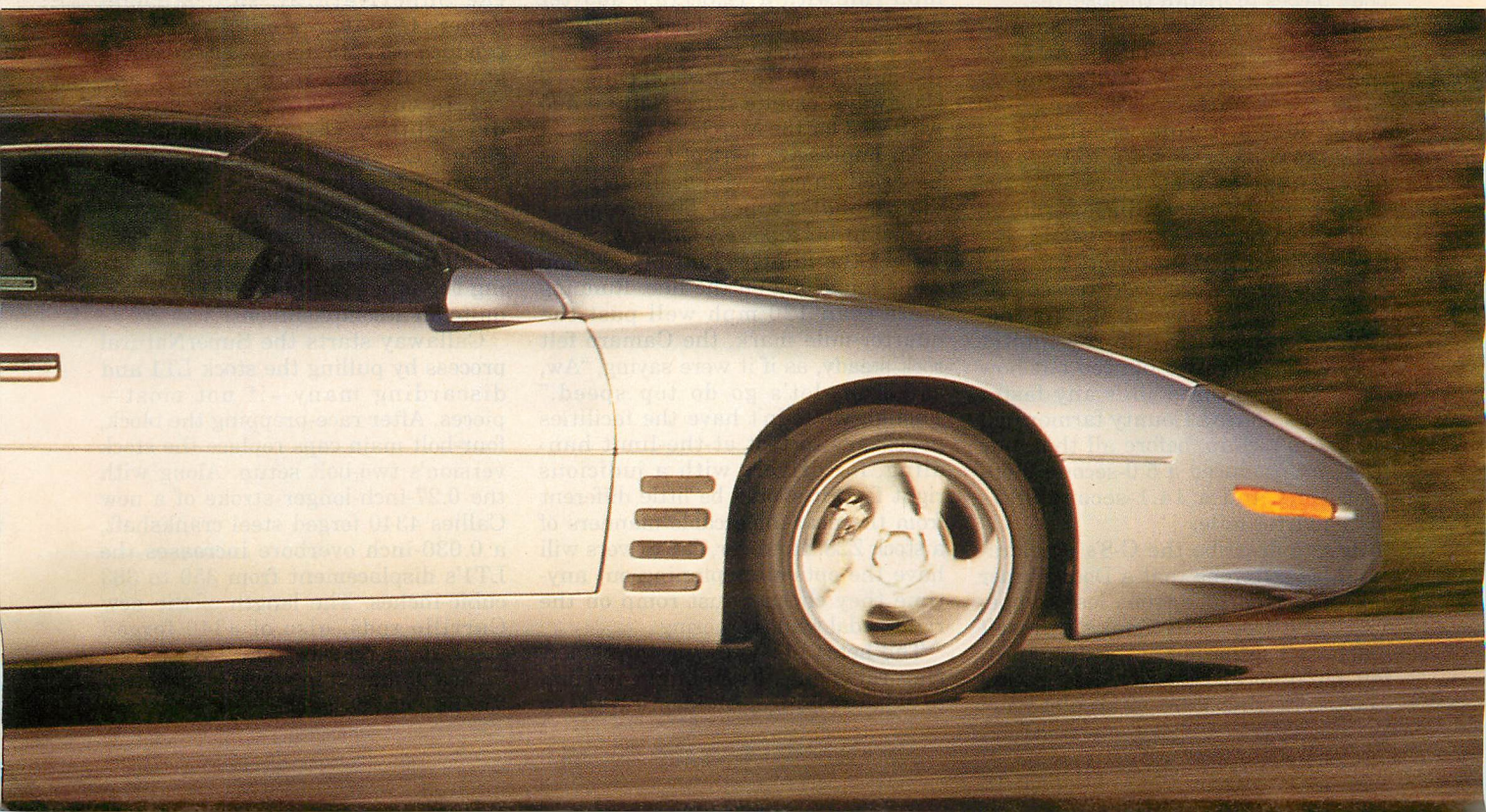
"Got one ready now? My new '93 Camaro isn't stout enough for my tastes, and I want one with more power," said Ogle.

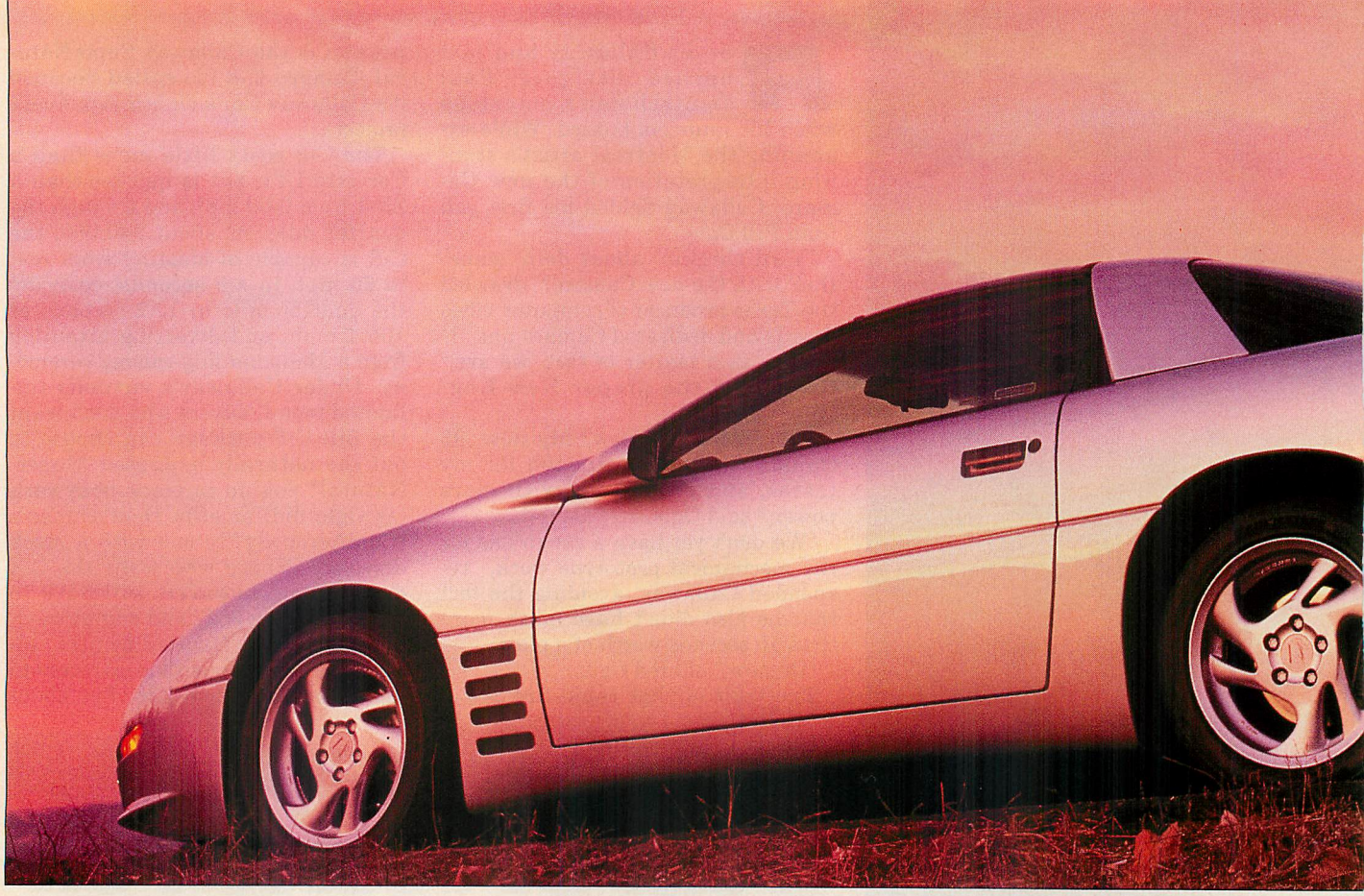
"We don't yet have a car to use for the mechanical prototype work," responded Callaway, avoiding the fact that he also didn't have much more than 15 seconds worth of a plan.

"Do now," offered Ogle.

The fruit of that rapid-fire act of passion is the Callaway SuperNatural Camaro C-8 (so called because it's Callaway Car's eighth significant project).

The C-8 costs little more than a Corvette LT1, but is quicker than a ZR-1 from 0-60 mph and through the quarter mile. At about $40,000, the C-8 is capable of blasting from rest to 60 mph in 4.6 seconds, covering the quarter mile in 13.2 seconds at 106.4 mph, and diverting attention from a Madonna flag-raising ceremony. Under Callaway's virtually unlimited menu, buyers who don't want the full C-8 package can choose to put the naturally aspirated "SuperNatural" engine in stock bodywork (as Ogle did) or affix Deutschman's "CamAerobody" to one with a stock driveline. Those who want the C-8 designation, however, will have to spring for both body and engine modifications. Also, Camaro owners can buy all the components separately to install on their own Z28. For about





$350, those who can't afford a car that's a full second faster 0-60 mph than their stock Z28 can buy the C-8's air intake, bolt it on, and get back 10 to 20 of the horsepower their LT1 lost when it was transplanted from the Corvette. Or, for about $4500, they can get the CamAero-body pieces to install themselves.

Callaway rates his SuperNatural engine at 404 horsepower at 5750 rpm and 412 pound-feet of torque at 4500 rpm. With an amazing 390 pound-feet of torque occurring as early as 2500 rpm, it's extremely easy to convert that power into forward motion, as we discovered on our first run down the dragstrip. Before we'd learned the limits of unfamiliar tires, before we'd tested the traction of a strange dragstrip, before we knew when the rev limiter kicked in, before we figured out how to do the two-three shift any faster than a Yalobusha County farmer in a '60 F-100 pickup, before all that, our first run produced a 5.0-second 0-60-mph time and a 14.1-second/98.7-mph quarter mile.

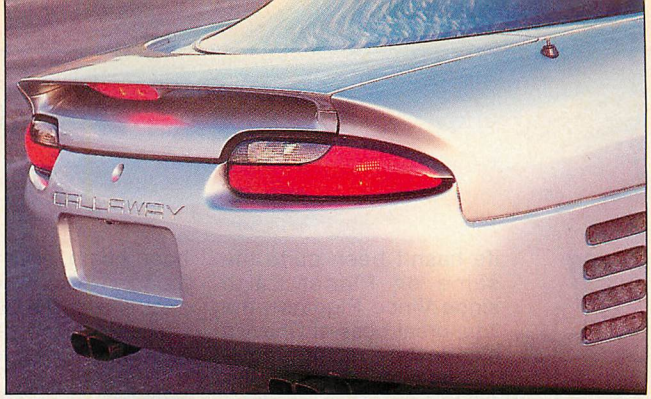
How to describe the C-8's acceleration? It's so strong that a Dodge Viper R/T 10 driven by anyone less competent than Don "The Snake" himself will be left slithering in the dirt. Most, but far from all, bracket drag racers know how this kind of acceleration plasters your eyeballs back into your skull and strains your neck muscles. To those of you who drive a Dodge Caravan with spouse and kids aboard: Imagine accelerating to 106 mph in about the time it takes you to reach 60 mph. Though we once had a prototype ZR-1 that produced a 4.4-second 0-60-mph run with a 12.8/113.8 quarter mile, Ogle's car was faster than all other ZR-1s we've tested. It also beat the automatic-transmission-equipped Callaway Corvette SuperNatural 400 we tested for the March '93 issue.

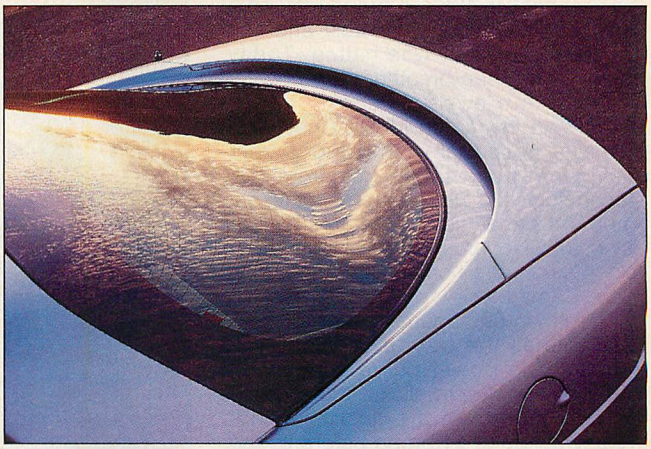
An impressive part of Ogle's car is how well an otherwise dead-stock Camaro handles a near 50-percent increase in horsepower. Only twice did we get the faintest hint of axle hop while launching off the line. Running more than 120 mph well past the quarter-mile mark, the Camaro felt rock steady, as if it were saying, "Aw, come on, let's go do top speed." Though we didn't have the facilities necessary to test at-the-limit handling, for drivers with a judicious right foot, it should be little different from the near-impeccable manners of a stock Z28. However, C-8 drivers will have the option of spinning out anytime they choose: Just romp on the right pedal while cornering.

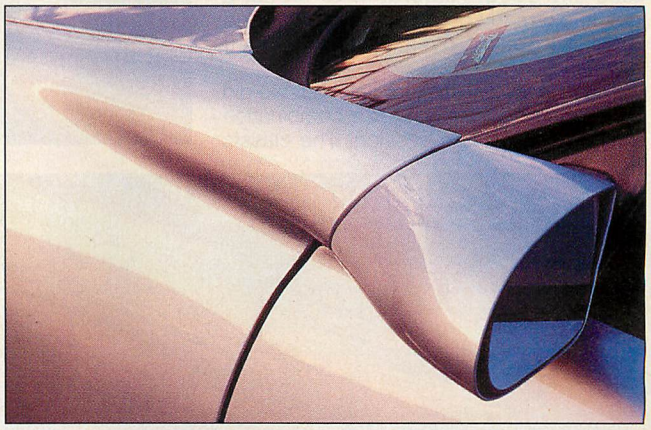
The heart of the C-8 is the SuperNatural engine. From intake plenum to exhaust flange, it's identical to the powerplant in the Callaway Corvette SuperNatural 400: an LT1 modified with a combination of computer-aided design and manufacturing mixed with good old-fashioned hot-rodding techniques.

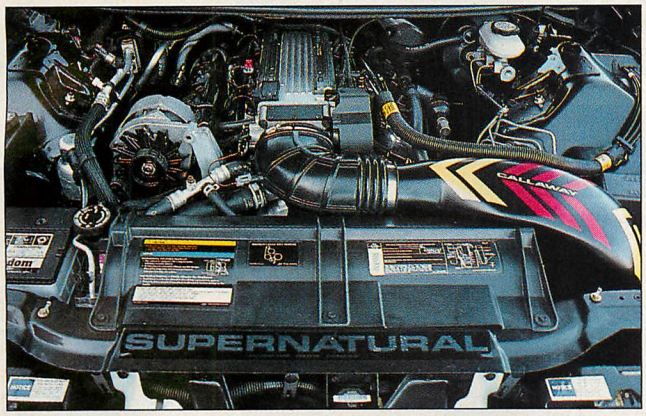
Callaway had three goals of roughly equal importance when developing the SuperNatural, said Michael Zoner, Callaway's chief engineer: produce exceptional power, meet 50-state emissions requirements, and retain the stock engine's superb driveability throughout the rev range. Of only slightly less importance, it had to be nearly as durable as the stock powerplant. It's easy to extract 400 horsepower from a Chevy small block, but to do so while clearing the other self-imposed hurdles is quite an accomplishment.

Callaway starts the SuperNatural process by pulling the stock LT1 and discarding many—if not most—pieces. After race-prepping the block, four-bolt main caps replace the stock version's two-bolt setup. Along with the 0.27-inch-longer stroke of a new Callies 4340 forged steel crankshaft, a 0.030-inch overbore increases the LT1's displacement from 350 to 383 cubic-inches. The length of the new Carrillo rods, also of 4340 forged steel, is increased from 5.70 to 5.85 inches to maintain what Zoner terms the proper rod-length-to-stroke ratio









With a combination of time-proven hot-rodding techniques and computer-aided design and manufacturing, the SuperNatural produces 404 horsepower and 412 pound-feet of torque. The tape-striped "honker," which Z28 owners can purchase separately for about $350 and install themselves, nearly doubles intake airflow, perhaps restoring 15 to 20 horsepower the LT1 lost when it was transplanted from the Corvette to the Z28.

Designer Paul Deutschman penned an aggressive rendition of what he thought the new Camaro should look like, and it caught the fancy of Reeves Callaway. The completely new fiberglass front fascia reduces lift and drag by moving air intake from under the nose to the front of it. The interior is unchanged save for an aluminum shift knob and a plaque autographed by Reeves riveted to the ashtray lid.

CHEVROLET CAMARO

ENOUGH CUBIC INCHES TO

PHOTOGRAPHY BY JIM FRENAK

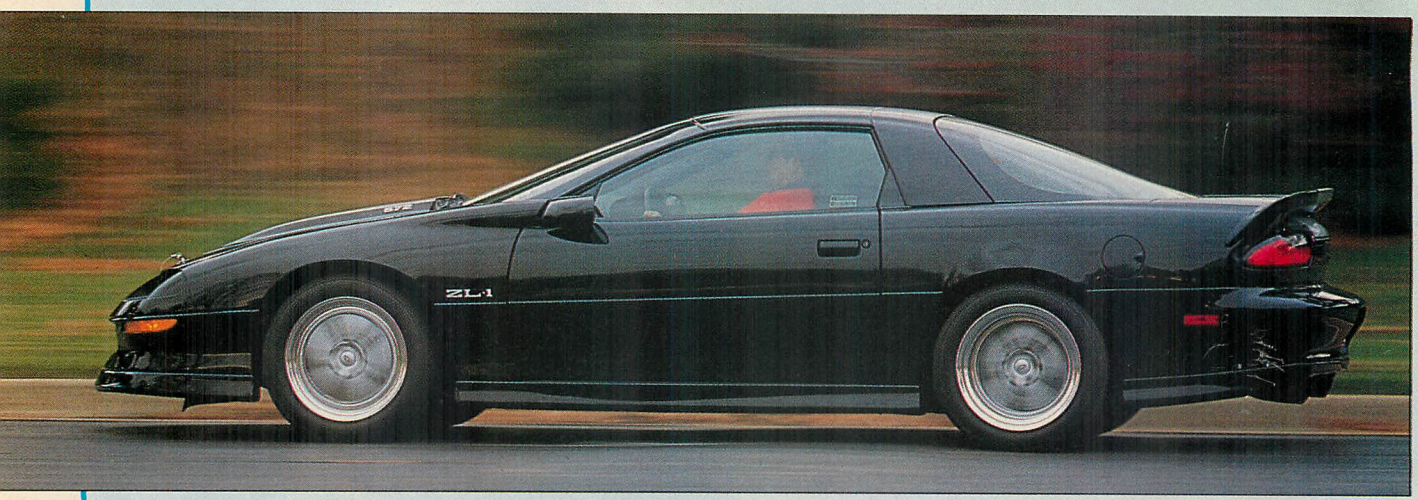
Life hasn't been quite the same on Planet Earth since Vince Piggins—the late, great boss of Chevy's clandestine racing activities—blessed the marriage of an all-aluminum big-block V-8 to a Camaro chassis way back in 1968. A grand total of 69 such ZL1 Camaros were built and sold before the project was halted. Today, those factory fire-breathers are coveted like the crown jewels of Persia.

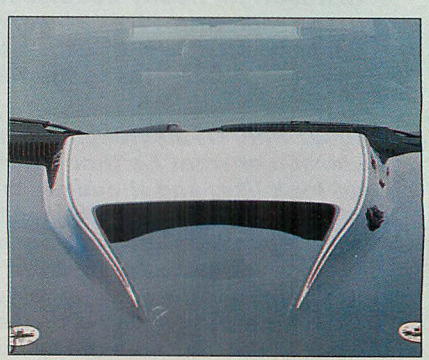
You can thank Jon Moss, Chevrolet's manager of special vehicles, for perpetuating the tradition. With help from TDM Technologies, a Detroit-area engineering shop, Moss has upped the ante by jamming a 572-cubic-inch all-aluminum big block under the hood of one fine, new, black Camaro.

More than 600 pound-feet of torque is available all the way to the 5500-rpm redline. The power curve climbs to a 635-pony peak. On slicks, this muscle-bound mauler ran the quarter mile in 11.6 seconds at 118 mph before its rear axle exploded. According to Moss, a guy in Germany heard about the car and offered to buy it over the phone, sight unseen, at any price.

The newest ZL1 isn't for sale, but we did succeed in borrowing it for a combination thrill ride and photo session. The classic hood hump, silver backside stripe, and modular Enkei wheels wear well on this sleek shape. The Goodyear GS-C rubber is Corvette-sized (285/40ZR17 in front, 315/35ZR17 in back), necessitating a tasteful stretch of the rear fender contours. The neatly added ground-effects and rear-spoiler panels will soon be marketed by road-racer R.K. Smith.

Twist the key, and the clamor of a Can





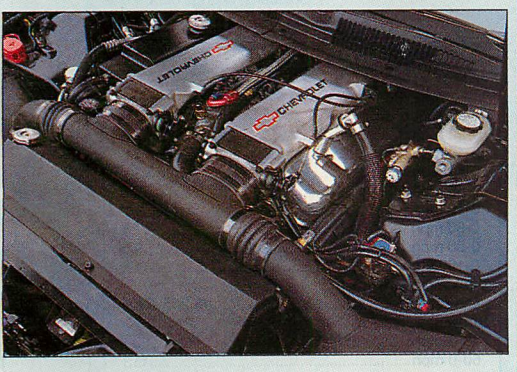
ZL1 "572"

START A WAR

Am grid erupts, uncensored by catalysts. Stainless-steel headers reverberate, and the cockpit twinges every time one of the 4.5-inch-diameter pistons hammers down. The all-aluminum Donovan big block idles placidly at 1500 rpm, then revs deliberately when ordered to do so through the heavy throttle. A good, swift kick is also necessary to depress the clutch. Tight detents lock each gear in resolute engagement deep within the Tremec racing five-speed.

Laws of physics being inviolate, wheelspin is the inevitable result of a full-throttle application in any lower gear. Rock-hard suspension springs and bushings cancel the usual pitching and squirming, so the primary sensation is the fruitless skidding of the tach needle across its dial. By 100 mph, the frenzied scratching for traction is over. Goodyear GS-Cs bite the pavement, and the bucket seat melts around your g-forced body. While the speedo and tach needles race for the high side of their dials, the fuel-injected engine serenades the road with golden-oldie melodies seldom heard since the demise of leaded gas and free-flowing exhaust. Beneath the mildly tweaked '93 Camaro costume lies a rocketship to the '60s.

Actually, the costume is about the only thing that comes from Chevrolet parts bins. Everything that makes this modern ZL1 go, stop, or turn—from the Brembo front brake calipers to the Brodix hand-ported cylinder heads, to the husky Dana rear axle—was specially made for the job. It must have cost a fortune. But, as the guy in Germany knows full well, the ride is worth the price of admission. *—Don Sherman*



and slow the speed of the rod at the top of the stroke.

New pistons, forged from a low-expansion, high-silicon aluminum alloy, combine with the new crank and rods to produce a zero deck height at top dead center. (Stock pistons are 0.025-inch below the block surface at TDC.) Compression ratio remains 10.5:1 because of the material removed from the combustion chamber during the porting process. The shapes of the combustion chamber and intake and exhaust ports were determined by combining knowledge gained from previous Callaway projects with computer modeling. After the final shapes were set, they were entered in the computer-numerical-controlled horizontal milling machine. Unlike the old hand-operated porting process, the CNC machine produces absolutely identical shapes. This refines balancing and blueprinting to a new level, making sure each cylinder does equal work.

The camshaft, ground to Callaway's specifications by General Motors, features altered lobe center angles and increased lift and duration. A combination that increases performance without hurting emissions. Stainless-steel valves, with 0.06-inch bigger heads, were installed for increased longevity and consistency. A racing-style three-angle cut was performed on the valve seats. Matched valve springs with slightly increased seat pressure are used. All moving parts were then balanced. The intake and exhaust ports were matched with their respective manifolds, and the throttle body was increased from 48 to 52 millimeters.

Assembly line and packaging considerations force severe restrictions in the stock Z28's induction and exhaust system, and that's the reason its LT1 makes less power than the same engine in the Corvette. "The stock Z28's induction system winds up with a cross section about yea big," said Zoner, holding his hands as if strangling a cat. "And its exhaust system has 6.0-psi backpressure at 6000 rpm, versus 4.5 in a Corvette." Uninhibited by production concerns, Callaway opened up the intake with a "honker" inlet pathway system that increases air flow into the plenum by 50 percent. In addition to increasing the intake cross-section significantly, the honker features a low-restriction K&N air filter located lower in the nose to pick up cooler, denser air from outside the engine compartment. While the architecture of the Chevy port fuel injection system was retained, Callaway generated new EPROM calibration "to accommodate the engine modifications and retain emissions compliance."

Many of the choices on the C-8 menu come from the exhaust system. The top-of-the-line unit, which costs about $2400, features high-flow stainless-steel tubular headers and a low-restriction exhaust, a combination Callaway hopes will reduce back pressure to as little as 2.0 psi at 6000 rpm. At least as significant is the beautiful exhaust note, a lion's purr when at idle, but at wide-open throttle, it becomes the roar of a World of Outlaws sprint car heard from outside the grandstands. Less-expensive versions of the system will be available separately through Callaway's catalog.

Soon, Callaway will begin suspension development work with John

Heinricy, a successful Corvette and Camaro race driver and "Manager for Continuous Improvement" for Chevrolet's Corvette Group. Though the possibilities are endless, expect Callaway and Heinricy to consider grafting the Corvette rear suspension onto the C-8. Beyond four-piston front brake calipers not fitted to Ogle's car, suspension modifications won't be included in the $40,000 estimated price of a C-8.

As Callaway discovered with his first modified Corvette offering, many buyers aren't satisfied with just a powerful engine. "Our customers like to have something that looks as good on the outside as it performs under the hood," he said. "Still, it's a real challenge to take a mature and elegant design and make it functionally better and visually more appealing." Kind of like doing plastic surgery on Michelle Pfeiffer. In drawing the CamAerobody, Deutschman, who has done every Callaway, sought to maintain a strong family resemblance with previous Callaways while offering "the feel of a classically configured sports car."

Reducing aerodynamic lift and drag at speed lead the functional goals. The first step was a completely new fiberglass front fascia that moved the front air inlet from under the front bodywork to the nose. New sill panels reduce air flow to the low-pressure area under the body. The new rear fascia, also of fiberglass, reduces overhang while maintaining the stock rear spoiler.

Partially because he started with one of 633 '93 Indianapolis 500 pace cars, partially because the video card "bidness" ain't *that* good, Ogle opted to forgo the CamAerobody. Ogle's car is stock Z28 save for the SuperNatural engine and wider 275/40ZR17 Bridgestone Expedia S-01 Run-flat tires on 17x9.5-inch wheels. Still, thanks to a conversion done by Callaway, Ogle's may be the only Indy pace car with a Borg-Warner six-speed rather than the standard four-speed automatic. Except, that is, for one built especially for another Texan, Chevrolet General Manager Jim Perkins.

The C-8 concept is a new tack for Callaway Cars, and Callaway hopes it'll help him reach two new markets: those who can't quite foot the bill for a Callaway Corvette but still desire awesome performance surrounded by stunning bodywork, as well as those who dream of such performance and beauty but have only a few thousand or a few hundred dollars to feed their yearnings. The C-8 and its components might just be the answer for both. **MT**

Callaway SuperNatural Camaro C-8

GENERAL

Make and model	Callaway SuperNatural Camaro C-8
Modifier	Callaway Cars, Old Lyme, Conn.
Location of final assembly plant	Old Lyme, Conn.
EPA size class	Sub-compact
Body style	2-door, 5-passenger
Drivetrain layout	Front engine, rear drive
Airbag	Dual
Base price	$40,000 (est.)
Price as tested	$46,000 (est.)
Options included	SuperNatural engine & install., $10,300; Stainless steel headers and exhaust, $2400; Bridgestone Expedia S-01 Run-flat tires and Callaway Run flat wheels, $5252; CamAerobody & install., $8500
Typical market competition	Pontiac Formula Firehawk, Saleen Mustang, home renovations wife's been hinting about for 3 yrs now

DIMENSIONS

Wheelbase, in./mm	101.1/2566
Track, f/r, in./mm	60.7/60.6/1542/1540
Length, in./mm	193.2/4908
Width, in./mm	74.1/1883
Height, in./mm	51.3/1303
Ground clearance, in./mm	4.4/112
Manufacturer's base curb weight, lb	3373
Weight distribution, f/r, %	56/44
Cargo capacity, cu ft	12.9
Fuel capacity, gal	15.5
Weight/power ratio, lb/hp	8.4

ENGINE

Type	90° V-8, liquid cooled, cast iron block, aluminum heads
Bore x stroke, in./mm	4.03 x 3.75/ 102.4 x 95.2
Displacement, ci/cc	383/6276
Compression ratio	10.5:1
Valve gear	OHV, 2 valves/cylinder
Fuel/induction system	Multipoint EFI
Horsepower hp @ rpm, SAE net	404 @ 5750
Torque lb-ft @ rpm, SAE net	412 @ 4500
Horsepower/liter	64.4
Redline, rpm	6250
Recommended fuel	Premium unleaded

DRIVELINE

Transmission type	6-speed manual
Gear ratios	
(1st)	2.97:1
(2nd)	2.07:1
(3rd)	1.43:1
(4th)	1.00:1
(5th)	0.80:1
96th)	0.62:1
Axle ratio	3.23:1
Final-drive ratio	2.00:1
Engine rpm, 60 mph in top gear	1800

CHASSIS

Suspension	
Front	Upper and lower control arms, coil springs, anti-roll bar
Rear	Live axle, torque arm, trailing arms, Panhard rod, coil springs, anti-roll bar
Steering	
Type	Rack and pinion, power assist
Ratio	14.4:1
Turns, lock to lock	2.3
Turning circle	37.8
Brakes	
Front, type/dia., in.	Vented discs/10.9
Rear, type/dia., in.	Vented discs/11.4
Anti-lock	Standard
Wheels and tires	
Wheel size, in.	17 x 9.5
Wheel type/material	Cast aluminum
Tire size	275/40ZR17
Tire mfr. and model	Bridgestone Expedia S-01 Run-flat

INSTRUMENTATION

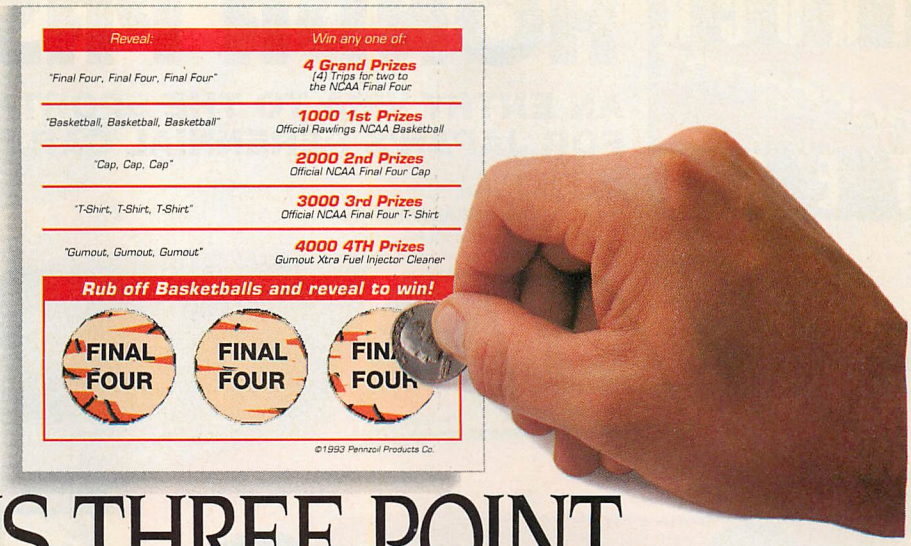
Instruments	150-mph speedo; 7000-rpm tach; fuel level; oil pressure, volts; digital clock
Warning lamps	Check gauges; security; service engine; brake; airbag; ABS; seatbelts; change oil; low-trac

PERFORMANCE AND TEST DATA

Acceleration, sec	
0-30 mph	2.0
0-40 mph	2.6
0-50 mph	3.7
0-60 mph	4.6
0-70 mph	6.2
0-80 mph	7.5
0-90 mph	9.5
0-100 mph	11.8
Standing quarter mile	
sec @ mph	13.2 @ 106.4
Braking, ft	
30-0 mph	31
60-0 mph	113
Handling	
Lateral acceleration, g	Not available
Speed through 600-ft slalom, mph	Not available
Speedometer error, mph	
Indicated / Actual	
30 /	27
40 /	37
50 /	47
60 /	57
Interior noise, dB	
Idling in neutral	N/A
Steady 60 mph in top gear	N/A

FUEL ECONOMY

EPA, city/hwy., mpg	15/23
Est. range, city/hwy., miles	232/356



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TRUCK TEST

HONDA PASSPORT

AN ENTRY VISA TO THE SPORT/UTILITY WARS FOR JAPAN'S PERENNIAL CAR MAKER

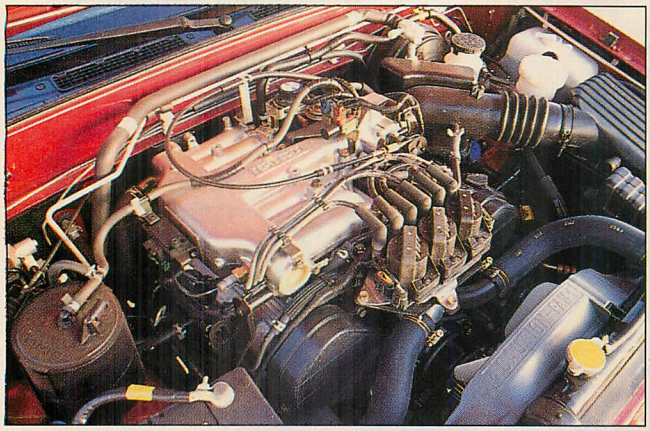
by Rik Paul

PHOTOGRAPHY BY THE AUTHOR

Over the years, Honda has developed a reputation for quality and reliability for which many other auto makers would sell their first-born. In terms of product-line development, however, it's displayed all the aggressiveness of an aging Swiss watch maker. Under the Honda nameplate, the company's been content to painstakingly fine tune and perfect the same core models—Accord, Prelude, and Civic (and sport derivatives)—shaping each into a perennial class leader, yet failing to pursue other lucrative market opportunities.

This may have been acceptable when sales were rosy and the Accord was at the top of the U.S. charts, but leaner times have brought a different perspective. Honda execs are now closely eyeing sales projections, which tell them the car market is expected to grow by only 22 percent during the '90s, while the sport/utility and van segments are projected to swell by a whopping 70 and 75 percent, respectively. Moreover, the company's own surveys of current Honda owners have indicated that many of them were considering buying an sport/utility as their next vehicle, with percentages reaching as high as 13.4 and 10.3 percent among CRX/del Sol and Prelude owners (well above the industry average of 6.8). Figures like these could make even a Swiss watch maker open his eyes and see the writing on the wall.

In late '92, Honda decided it needed to get an SUV into dealers' hands and didn't want to wait to develop its own from



The thoroughly modern 175-horse 3.2-liter SOHC aluminum V-6 used in LX and EX models features four valves per cylinder, hydraulic valve adjustment, multipoint fuel injection, and a distributorless direct ignition system.

Inside, the Passport is roomy, comfortable, and functional. With one of the longest wheelbases in its class, there's generous leg room both front and rear.

scratch. The answer was a first for Honda: a cooperative agreement to rebadge somebody else's vehicle. After a thorough scan of the market, Honda set its sights on the Isuzu Rodeo, which had several attractive aspects. It's built in Lafayette, Indiana (with about a 60-percent domestic content), it's been the best-selling import sport/ute for the past several years, and perhaps most important, the quality was up to Honda standards.

The result is the Honda Passport differs from its Rodeo origins only in subtle ways. It sports a new grille and alloy wheel design. The outside mirrors, door handles, and D-pillars are painted body color instead of chrome or black. And Honda logos have replaced their Isuzu counterparts on the steering-wheel pad, wheel caps, spare-tire cover, and exterior badging.

The Passport is available in three trim levels. The DX is a two-wheel-drive version with Isuzu's 120-horsepower 2.6-liter four-cylinder engine and five-speed manual transmission. The mid-level LX is available in either two- or four-wheel drive and is powered by an Isuzu-built 175-horsepower 3.2-liter 24-valve V-6 coupled with either the five-speed stick or a four-speed automatic. The top-of-the-line EX is four-wheel drive only, with the same powertrain as the LX. Four-wheel-drive versions also include a two-speed transfer and case auto-locking front hubs.

The 3.2 V-6 we drove was strong, efficient, and friendly. Through a variety of on- and off-road terrain, it delivered ample power for most situations, and its 10.5-second 0-60 mph is among the best in its class. Only while climbing some mountain roads did it want for more power.

Stopping duties are handled by four-wheel discs on the LX and EX models (disc/drums on the DX) and standard rear-wheel ABS.

The suspension consists of independent double wishbones and torsion bars up front and leaf springs in the rear. On most surfaces, the Passport responds well, offering a comfortable, controlled ride. Only on some choppy, washboard-type surfaces do the rear leaves demonstrate their relative lack of finesse. The variable-power-assist, recirculating-ball steering is accurate and responsive, although it exhibits a bit of vagueness on center—sensations we've also noticed in the Isuzu, of course.

While 225/75QR15 tires and 15-inch rims are standard fare, for an extra $600, 4x4 LX and EX models can be fitted with an optional 16-inch wheel-and-tire package, which includes large 245/70QR16 tires, alloy wheels, a limited-slip rear differential, flared wheelwell moldings, and splash guards.

Inside, the DX includes a front bench seat, offering six-passenger carrying capacity, while the LX and EX both include front buckets. Instruments and controls are generally well placed, although the radio is positioned awkwardly low.

The Passport's suggested retail entry-level price is $15,660 for the DX. This ranges upward to a high of $25,000 for the EX with automatic. According to Honda, prices average about $250 to $400 more than comparably equipped Rodeos.

The Passport gives Honda a much-needed foothold in the SUV market. But will the car specialist be able to sell a rebadged vehicle? Well, Honda enjoys a particularly brand-loyal customer base. Whether buyers know or even care that it's built by Isuzu likely will be a minor issue. That it's received the Honda seal of approval and that Honda loyalists interested in an SUV won't have to abandon their current dealerships are probably more important concerns and likely all the reassurance buyers will need. MT

The tailgate and swing-up rear window allow access to 35 cubic-feet of cargo room, which jumps to almost 75 with the rear seat folded down. A 60/40-split rear bench is standard on the topline EX model.

TECH DATA

Honda Passport EX

GENERAL/POWERTRAIN

Body style	4-door, 5-passenger
Vehicle configuration	Front engine, rear or 4-wheel drive
Airbag	None
Engine configuration	V-6, SOHC, 4 valves/cylinder
Engine displacement, ci/cc	193/3165
Horsepower, hp @ rpm, SAE net	175 @ 5200
Torque, lb-ft @ rpm, SAE net	188 @ 4000
Transmission	5-speed manual
Axle ratio	4.1:1

DIMENSIONS

Wheelbase, in./mm	108.5/2760
Length, in./mm	176.5/4480
Base curb weight, lb	4120
Fuel capacity, gal	21.9
Fuel economy, EPA city/hwy., mpg	16/19
Cargo capacity, cu. ft.,	35.0, rear seat up/ 74.9, rear seat down

CHASSIS

Suspension, f/r	Independent/live axle
Steering	Recirculating ball, power assist
Brakes, f/r	Vented discs/vented discs, rear ABS
Wheels	15 x 7.5, alloy
Tires	BFGoodrich Trail T/A 225/75QR15

PERFORMANCE

Acceleration, 0-60, sec	10.5
Quarter mile, sec/mph	17.6/77.6
Braking, 60-0, ft.	146
Slalom, 600-ft, mph	55.7
Skidpad, 200-ft, lateral g	0.71
Maximum towing capacity, lb	4500

PRICE

Base price	$23,900

Ladies and gentlemen, what you have before you is automotive nirvana. Or what is officially known as the Nissan® 300 ZX® Turbo.

The Turbo Z,® as our enthusiast friends affectionately call it, is nothing less than the measuring stick by which every sports car ever built is judged. And while such a statement may raise a few eyebrows in Ferrariville and put a few noses out of joint in Porscheland, it is something that we are proud to back up with a trophy case full of awards from virtually any self-respecting automotive magazine you can think of.

Take for instance the fact that the Turbo Z has made *Car and Driver*'s Ten Best list for five years in a row (every year since its introduction).* And if that isn't enough, we invite you to consider the fact that it's been an *Automobile Magazine* All-Star for five consecutive years as well.**

Such across-the-board acclaim for such a long period of time has never been duplicated. Ever.

Credentials like these certainly aren't easy to come by. But if you closely analyze the Turbo Z's rocket science technology, compare its awesome specs, feel its impeccable level of fit and finish, you'll start to understand precisely where all the head-swelling flattery originates from.

We'll begin with the engine. After all, that is where the soul of the Turbo Z lurks.

Tap the accelerator and its Nissan Valve-Timing

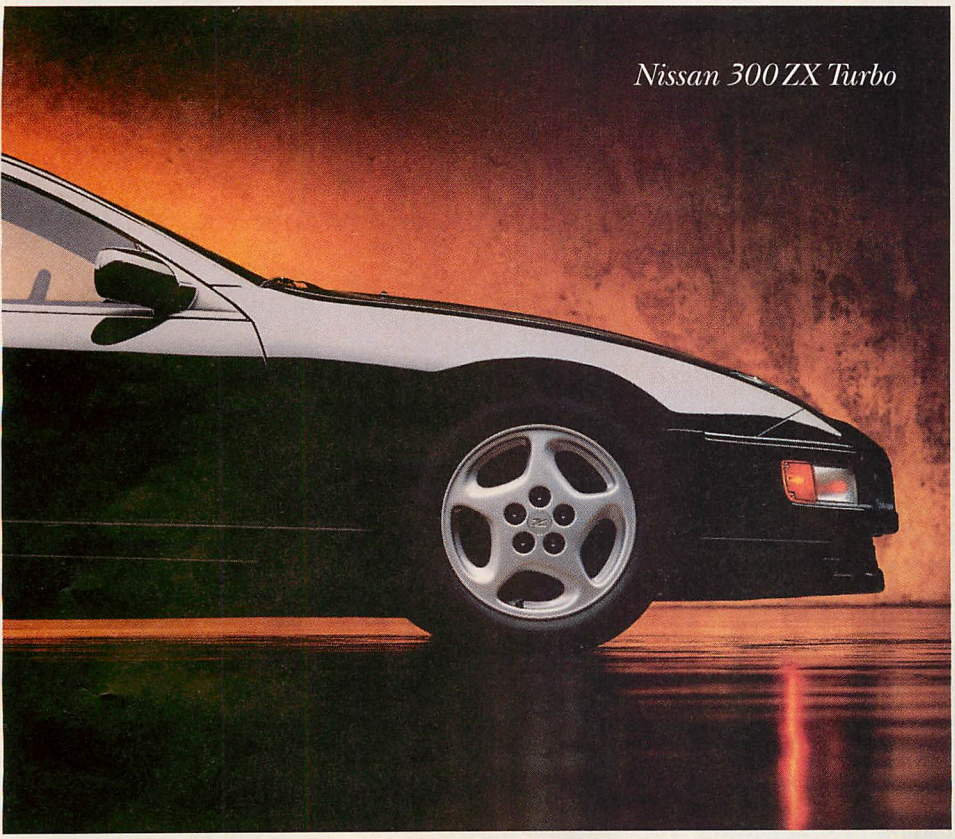
Welcome to the

Control System (NVCS) goes to work—providing optimum intake timing and resulting in incredible low-end response. (It flies from 0-60 in 5 seconds flat.†) Go up through the gears and you'll experience what seems like never-ending high-end power as the NVCS automatically adjusts and the twin turbos of its 3.0-liter DOHC 24-valve V6 300-horsepower engine quickly kick in.

*Nissan Motor Corporation U.S.A. Smart people always read the fine print. And they always wear their seat belts.*Car and Driver, January '90, '91, '92, '93, '94. **Automobile*

Take it into the S-curves and you'll see why the Turbo Z holds the distinction of being one of *Road & Track*'s ten best-handling cars in the world.†† Its standard multi-link front and rear suspension, viscous limited-slip differential, Super HICAS® Nissan's one hundredth IMSA GT victory.

Slide into the cockpit and you'll find the attention to detail is exquisite. The driver's seat electrically adjusts seven different ways and showcases special deep-cut hip and side bolsters that keep the driver in place during hard cornering. To give you an idea of our fanaticism, Nissan engineers rejected over 1,000 different designs before the perfect seat was chosen.



Move your hand from the steering wheel to the gear shift and you'll notice they're on a perfect parallel plane to minimize the time your hand is away from the wheel. We also made the buttons and controls recognizable by touch so you needn't take your eyes off the road for an instant. We prefer not to make comparisons, but as *Automobile Magazine* so eloquently put it: "The 300ZX buries the Corvette in the fine points."†††

catbird seat.

4-wheel steering and electronically controlled Anti-lock Braking System (ABS) work in perfect harmony–giving it incredible control and traction on the gnarliest of corners and the slipperiest of road surfaces.

And for all you racing aficionados out there, a large portion of this advanced technology recently helped propel our Turbo Z race car straight to

If you'd like to learn more about the Turbo Z, call us at 1-800-NISSAN-3, ext. 705. Or visit your Nissan Dealer and tell him you're ready to experience the world's most extraordinary sports car.

He'll be very happy to direct you to your seat.

NISSAN *It's time to expect more from a car.*™

Magazine, January '90,'91,'92,'93, February '94. †With 5-speed. Car and Driver, January '93. ††Road & Track, March '92. †††Automobile Magazine, January '93.

THUNDER

BMW 530i TOURING, MERCEDES-BENZ E320

ROAD TEST

Strap in the baby, tie down the dog, and get a firm grip on the potato salad... Now, floor it!

by C. Van Tune

PHOTOGRAPHY BY RICK GRAVES

Editor's Warning: The story you are about to read contains numerous references to turbocharged horsepower, tire-smoking acceleration, 16-inch wheels, 50-series tires, and four-wheel disc brakes. Do not be afraid. These cars are station wagons.

Remember when the neighborhood was full of station wagons? It doesn't seem all that long ago that Ford Country Squires, Chevy Biscaynes, and Plymouth Satellites lined the driveways of every town from Santa Monica to Schenectady. Three rows of vinyl bench seats, a "sensible" V-8 underhood, and optional simulated wood trim for one-upping the Joneses—what else did mom need? The only "minivans" were the VW bus and Chevrolet Corvair Greenbriar, and no one but bona-fide hippies, Berkeley profs, or Central-America-bound Peace Corps volunteers chose to drive those.

But, here we are in the "environineties." All that fun we had as

WAGONS:

WAGON, VOLVO 850 SPORTSWAGON TURBO

kids breathing CFC-spewing air conditioning, spilling our non-yogurt ice creams on non-Scotchgarded upholstery, and playing Vlad the Impaler with the handy assortment of sharp metal knobs and levers, has forever vanished. Today's fine young citizens are transported in politically correct, form-fitting, safety cocoons. The sanitized-for-your-protection message: No fun allowed.

If you're the sort whose life's obligations demand a minivan, but whose inner-child can't stand to give up the Porsche, there still may be one type of vehicle that can please both sides of this painful human equation. We call them thunder wagons: high-tech, high-performance Euro machines that combine the utility benefits of a station wagon with the enthusiast feel of a virile sport sedan. Boasting bodywork that's at least as comely as their four-door counterparts, suspension tuning to allow hefty payloads as well as cornering bravado, and engines producing over 200 horsepower, these will forever change your interpretation of the family-car scenario. Meet the BMW 530i Touring, Mercedes-Benz E320 Wagon, and Volvo 850 Sportswagon Turbo.

Until recently, only Volvo offered a wagon con brío. As incongruous as it seems, the previous 740 and (still available) 940 Turbo wagons were flagrant tire-smokers, but came wrapped in boxy styling to throw wary insurance agents off the track. All that was missing was a yellow "Baby In Boost" warning

THE PERFECT FAMILY CARS—FOR THE ANDRETTI FAMILY

BMW 530i Touring

Mercedes-Benz E320 Wagon

Volvo 850 Sportswagon Turbo

triangle suction-cupped to the rear window. Today, a front-drive 850 Turbo version has been added to the Swedish auto maker's recipe list. Don't be fooled, it's a real scorcher.

Bayerische Motoren Werke steps up the go-power in its 5-Series wagon this year by commingling the smooth 3.0-liter V-8 and luscious five-speed automatic with its extended-sedan platform, and creating a 530i derivative of the lower-priced six-cylinder 525i Touring. The improvement is significant: 0-60-mph times drop by nearly 3 seconds.

Mercedes-Benz enters the sports-wagon fray by replacing its 300TE with the new nomenclature of E320. (The 4matic all-wheel-drive version has been killed.) Displacement of its torquey inline-six expands to 3.2 liters, and performance makes a solid leap toward redline. Best of all, the '94 E320 is priced about $8000 less than last year's wagon.

The main reason to consider one of these thunder wagons versus their sedan brethren is for the increased storage space aft of the rear seats. Passenger capacity doesn't increase in the BMW, which means five humans are the cartage limit for this player. The Mercedes delivers extra perches in the form of a standard fold-down rear-facing jumpseat with room for two small, limber riders; Volvo offers the option of a similar arrangement. However, if seven-passenger capacity is your number-one need, get a minivan.

Look at the spec chart, and you'll see the 850 is the smallest of the group, resting on a 104.9-inch wheelbase, measuring 185.4 inches stem-to-stern, and carrying a curb weight of 3400 pounds. Next up is the 530i, with a 108.7-inch wheelbase, 185.8-inch overall length, and 3880-pound mass. The E320 covers the most real estate, with 110.2 inches between the axles, and bodywork stretching 188.2 inches bumper to bumper, but tucks in under the Bimmer with just 3750 pounds of curb weight. Park the Benz next to a

First-class luxury awaits your entry. BMW takes top ergonomics honors, but the Volvo provides the most generous passenger space. M-B's seats are faux leather.

GUESS WHICH ONE DOES 0-60 MPH IN 7.0 SECONDS

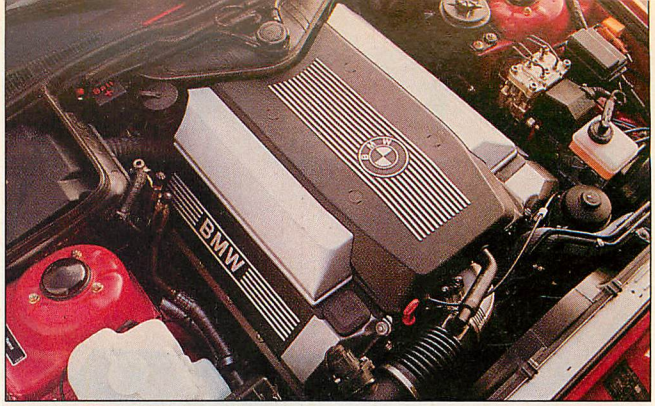
big, authentic, nine-passenger Amurrican sta-chun-wagon like the Chevrolet Caprice (217.3 inches in length, 4541 pounds of road-hugging weight), and you'll receive a graphic representation of Euro-think, family-car style.

Each of our test subjects is close to the others in terms of useable interior space, with mere fractions of inches separating the largest from the smallest in most every place we measured. The diminutive Volvo provided the most generous human compartment, taking the honors in front-seat head room, rear-seat leg room, and front/rear shoulder area. The M-B and BMW only scored "class best" accolades in one category each (front leg room, Benz; rear head room, Bimmer). The E320 delivers the most cargo area, with up to 76.8 cubic-feet of storage space once its rear seat is folded (that's nearly 10 cubic-feet more than in the Volvo and 25 more than the BMW). The Bimmer's separate lift-up tailgate glass, however, lets you load small items without having to heft the big rear door.

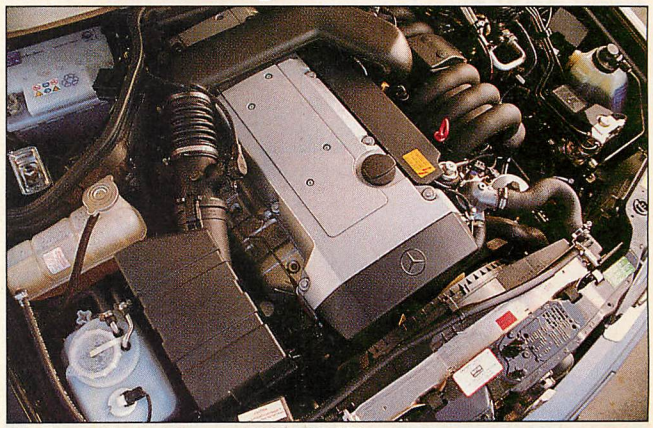
Interior styling is a spot-on copy of each machine's sedanly relative, until you crane your neck to catch a glimpse of the luxuriously appointed mini-cavern looming behind the rear seat. A boy-king's sarcophagus and a dozen Grade AA Fabergé eggs would be more appropriate cargo than K mart weed-whackers and sacks of Gro-Mulch. BMW and Mercedes offer optional cargo nets to keep your prized wire-hair terrier from becoming a projectile when the traffic in front of you suddenly screeches to a halt; in the Volvo, a net is standard.

Wagons provide a utility far in excess of what even a large sedan with fold-down rear seats and a pass-thru to the trunk can offer. Combined with the people-and-parcel-carrying versatility of split fold-down

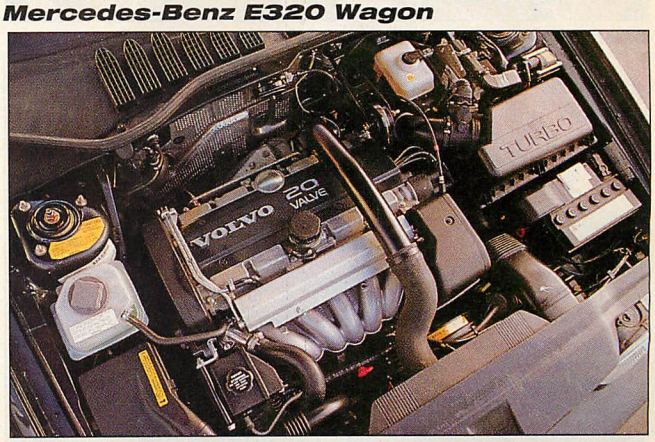
Three flavors of performance, no waiting: The Bimmer's 3.0-liter V-8, Benz's 3.2-liter I-6, and Volvo's 2.3-liter turbo I-5 deliver near-equal horsepower.



BMW 530i Touring



Mercedes-Benz E320 Wagon



Volvo 850 Sportswagon Turbo

BMW 530i Touring

Mercedes-Benz E320 Wagon

Volvo 850 Sportswagon Turbo

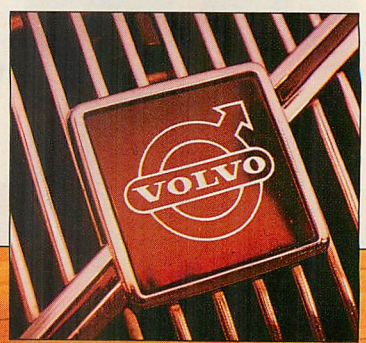
HIGH TECH, HIGH POWER, HI THERE, OFFICER

second-row seatbacks, any of these thunder wagons can easily tote a foursome to the ski lodge while carrying all the necessary gear inside where it's warm. (Or stow it on the optional roof rack.) Heated front buckets are optional across the board, and well worth their relatively minor tariff; Volvo even offers a heated rear bench. The M-B's front and rear seats are the firmest of the group, and outfitted with "MB-Tex" mock-cowhide upholstery that looks tough enough to withstand an invasion at Normandy. Our panel of soft-buttocked judges rated the Bimmer's standard-leather seats (with individual fold-down front armrests and power-adjustable headrests) the most comfortable/supportive all-around; the Volvo's seat feel (leather is a $995 option) ranked second.

The Volvo and BMW further serve your desire to dictate interior climate by providing separate driver/front-passenger temperature controls for the ventilation system. You want 80-degree air in your face while traversing the mountain switchbacks, but your co-pilot threatens to blow chunks unless he's getting an Arctic blast? Not a problem with the dual-temp-control systems. Mercedes owns the technology for a dual-temp setup of its own, but chooses to install it only in the flagship S-Class line. The 530i Touring takes the award for best controls, gauges, and ergonomics of this mix, though we have only minor complaints about the others.

Safety items gush forth from every nook and cranny of these virile sport wagons. Dual airbags, automatic front seatbelt pretensioners (which instantaneously tighten the belts during a collision), and height-adjustable front shoulder-belt anchors serve to maximize front occupant protection on all three cars. The front shoulder-belt adjustment is automatic, relative to seat position, on the BMW and Volvo; in the Mercedes it's manually operated. Frankly, we prefer the manual adjustment, which allows a greater range of comfort for very tall or very short drivers. Further attention to safety

Looks can be deceiving. The small-on-the-outside Volvo is the biggest inside, with 25 cubic-feet more cargo capacity than the BMW.



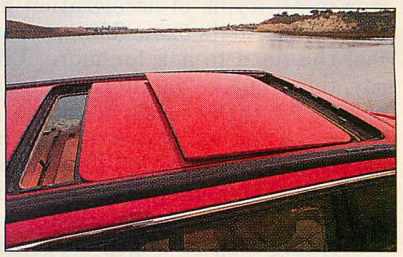
brings three headrests to the rear seats of the M-B and Volvo, three-point belts for each rear rider in the svelte Swede, and Volvo's integrated "child safety booster cushion" that folds out of the rear-center armrest and will support a child weighing between 50 and 80 pounds. Proactive technology from BMW includes an "impact sensor" that unlocks the doors, switches on the interior lights, and activates the hazard flashers in the event of an accident.

Okay, so much for the sensibilities. Isn't this supposed to be a test of enthusiast cars? Step this way, oh ye of heavy right foot. The fun starts when you lift the hoods and peer at the variety of engines awaiting your command—five-, six-, and eight-cylinder powerhouses with up to 222 horsepower. The Volvo uses a turbo; the others depend on sheer displacement. All breathe deep with dual overhead camshafts operating four valves per cylinder, and spin to redline with a fervor that'll make you wish you could take traffic school more often than once a year. Four-speed automatics tailor the power of the 850 and E320, while the 530i receives BMW's close-ratio five-speed automatic. The two Germans use rear-wheel drive, while the lone Scandinavian chooses front-wheel drive. Traction control is standard on the BMW, optional on the Volvo, and unavailable on the Benz.

In closer detail, the Volvo's 2.3-liter, turbocharged, inline-five is an even more formidable adversary. Spinning out 222 horsepower at 5200 rpm and 221 pound-feet of torque at a low 2100 rpm, this is the big gorilla of the Euro-wagon world. Boost is lacking low in the rev range, but by the time you're at 3000 rpm, things are happening quickly. There's an extra power surge as the tach needle sweeps past 5000 rpm, followed by a precision shift at 6000 rpm each and every time you mash 'er into the carpet. That's enough suds to yank our fifth-wheel from 0-60 mph in 7 seconds flat and trespass through the quarter mile in 15.3 seconds at 92.8 mph. Or, in other words, go find an Infiniti Q45, Ford Taurus SHO, or Acura Integra GS-R to insult. A normally aspirated version (168 horsepower, 162 pound-feet) will cost you less money, but is about 2 seconds slower to 60 mph and won't impress your teenage kids' friends with nearly the amount of tire smoke.

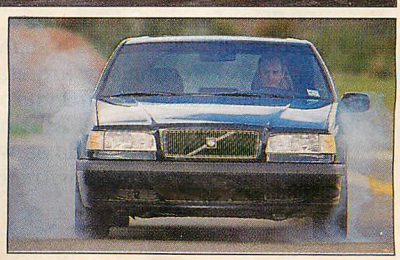
Next on the count-the-sparkplugs list is the Mercedes' 3.2-liter inline-six. Physically massive-looking, as surrounded by its various underhood appendages, this teutonic power station produces 217 horsepower at 5500 rpm and 229 pound-feet of twist at 3750 rpm. Carrying an extra 350 or so pounds over the Volvo, and not developing max torque until 1650 rpm higher in its rev range, the M-B isn't nearly as blood thirsty in demeanor as the savage Swede, especially at city traffic speeds. Still, it's far from a slug. Zero-to-60 mph takes 8.1 seconds, and the quarter mile scoots past in 16.2 seconds at 88.4 mph. Highway passing power is very good, and max-throttle shifts occur without drama at 6300 rpm. We'd love to sample M-B's 4.2-liter (275-horsepower) V-8 in this bodystyle.

The smallest-displacement production V-8 sold in America is the 3.0-liter gem found in this Bimmer. That's a meager 183 cubic-inches, or just over half the size of the 5.7-liter V-8 in a Chevy Caprice wagon. Designed with a masterful attention to reciprocating



BMW's tailgate lets you open the glass separately, for easy loading of small items. The optional dual-panel sunroof gives a solar view to front and rear riders.

Blessed with typical Mercedes bank-vault-like construction, the E320 is a safe and secure family transporter, with 7-passenger seating and a comfy ride.



Wearing taillight styling reminiscent of a GM minivan, the sleek Volvo is a surprise performer. Who'd guess 50-series tires on a Swedish wagon?

harmony, this engine trades some of its potential power in exchange for that last bit of smoothness. Making 215 horsepower at 5800 rpm and 214 pound-feet of torque at a relatively lofty 4500 rpm, this V-8 feels more like a nice six in terms of thrust—especially trying to contend with the Touring's nearly 2-ton mass. Zero-to-60 requires 8.9 seconds, while a full-throttle quarter-mile run will take 16.7 seconds and net an 86.2-mph speed. So, though the 530i is far superior in all forms of acceleration and driveability to its 525i sibling, we still feel the need to ask for more. Like, say, the exquisite 4.0-liter (282 horsepower) V-8 that's in BMW's stable, or, better yet for the power-mad among us, the now-departed M5's rampaging 3.5-liter (310-horsepower) inline-six and five-speed manual gearbox.

Creating a sport wagon suspension isn't easy. You want to retain the suppleness and good ride qualities, but add extra cargo-carrying capability. The car needs to feel nimble when it's packed to the gunwales, but not be a rock-hard torture chamber when empty. All three wagons use strut-type front suspensions, and variations of the multilink setup out back, augmented by an automatic level control on the rear shock absorbers to maintain proper ride height even when loaded. The BMW fits speed-sensitive power recirculating-ball steering; the Benz gets a non-speed-controlled power recirculating ball; the Volvo chooses power rack-and-pinion.

The chassis engineers at all three companies deserve immediate raises; these cars are that good. BMW takes the accolades for steering response and deftness of overall feel, though the Benz's tank-like construction merits top honors for structural integrity. But it was the Volvo that really rocked our world. Riveted to the ground with 205/50ZR16 Michelins (did you get that? 50-series 16s!) wrapped around high-buck-looking five-spoke alloys, this so-called stodgy, square box whipped through our 600-foot slalom at an average speed of 64.3 mph. That's 1.3 mph faster than the Bimmer, 3.6 mph quicker than the Benz, and 1 mph better than a Porsche 928 GTS. On the skidpad, it fell victim to front-drive understeer, yet still metered a 0.80g rating; the 530i (wearing 225/60ZR15 Pirellis) scored 0.81 g, and the E320 (with tiny 195/65HR15 Michelins) fell to third place at 0.78 g of grip.

Four-wheel disc brakes with sophisticated anti-lock technology are standard equipment on this thunderous trifecta. No complaints here. All three handled steep mountain roads as well as our track-testing regimen without a whimper. Short-stopping kudos go to the BMW, with a 60-0-mph distance of 123 feet, followed by the Volvo at 128 feet, and the Merc at 131 feet.

On the highway, the luxury of these machines shines. Near-silent in operation, silken in demeanor, and purposeful in execution, they reveal no negative aspects of carrying the wagon bodywork. Think of them as really good sedans with really large trunks. We like the Mercedes E320 best for its solid platform and large cargo area; the BMW 530i for its interior design and steering/braking/handling feel, and the Volvo 850 for its sleek looks and shocking performance. Factor in the base/as-tested prices ($44,000/$46,765, BMW; $46,200/$48,440, Mercedes; $30,985/$33,640, Volvo), and the winner becomes apparent.

The Volvo 850 Sportswagon Turbo is lord and master of the new order of the thunder wagon. MT

TECH DATA

GENERAL	BMW 530i Touring	Mercedes-Benz E320 Wagon	Volvo 850 Sportwagon Turbo
Importer	BMW of North America, Inc., Woodcliff Lake, N.J.	Mercedes-Benz of North America, Montvale, N.J.	Volvo Cars of North America, Rockleigh, N.J.
Location of final assembly plant	Dingolfing, Germany	Sindelfingen, Germany	Ghent, Belgium
Body style	4-door, 5-pass. wagon	4-door, 7-pass. wagon	4-door, 5-pass. wagon
EPA size class	Compact	Compact	Compact
Drivetrain layout	Front engine, rear drive	Front engine, rear drive	Front engine, rear drive
Airbag	Dual	Dual	Dual
Engine configuration	V-8, DOHC 4 valves/cylinder	I-6, DOHC 4 valves/cylinder	I-5, DOHC 4 valves/cylinder turbocharged, intercooled
Engine displacement, ci/cc	183/2997	195/3199	142/2319
Horsepower, hp @ rpm, SAE net	215 @ 5800	217 @ 5500	222 @ 5200
Torque, lb-ft @ rpm, SAE net	214 @ 4500	229 @ 3750	221 @ 2100
Transmission	5-speed auto.	4-speed auto.	4-speed auto.
Base price	$44,000	$46,200	$30,985
Price as tested	$46,765	$48,440	$33,640

DIMENSIONS			
Wheelbase, in./mm	108.7/2760	110.2/2799	104.9/2664
Track, f/r, in./mm	57.9/58.9/1470/1495	58.9/58.6/1496/1488	59.8/57.9/1519/1470
Length, in./mm	185.8/4720	188.2/4780	185.4/4709
Width, in./mm	68.9/1750	68.5/1740	69.3/1760
Height, in./mm	55.8/1417	59.8/1519	55.7/1415
Ground clearance, in./mm	5.0/127	5.0/127	6.2/157
Mfr's base curb weight, lb	3880	3750	3400
Weight distribution, f/r, %	47/53	52/48	60/40
Cargo capacity, cu ft	51.2	76.8	67.0
Fuel capacity, gal	21.1	19.0	19.3
Weight/power ratio, lb/hp	18.1	17.3	15.3

CHASSIS			
Suspension, f/r	Independent/ independent	Independent/ independent	Independent/ independent
Steering	Recirculating ball, power assist	Recirculating ball, power assist	Rack and pinion, power assist
Turning circle, ft	36.1	37.0	33.5
Brakes, f/r	Vented discs/ discs/ABS	Vented discs/ vented discs/ABS	Vented discs/ vented discs/ABS
Wheel size, in. Material	15 x 7.0 Cast aluminum	15 x 6.5 Cast aluminum	16 x 6.5 Cast aluminum
Tire size Mfr. and model	225/60ZR15 Pirelli P600	195/65HR15 Michelin MXV 3	205/50ZR16 Michelin Pilot HX

PERFORMANCE			
Acceleration, 0–60 mph, sec	8.9	8.1	7.0
Standing quarter mile, sec/mph	16.7/86.2	16.2/88.4	15.3/92.8
Braking, 60–0, ft	123	131	128
Handling, lateral acceleration, g	0.81	0.78	0.80
Speed through 600-ft slalom, mph	63.0	60.7	64.3
EPA fuel economy, mpg, city/hwy.	16/25	18/24	19/26

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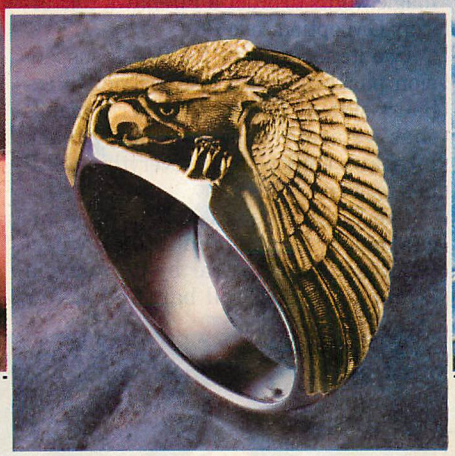

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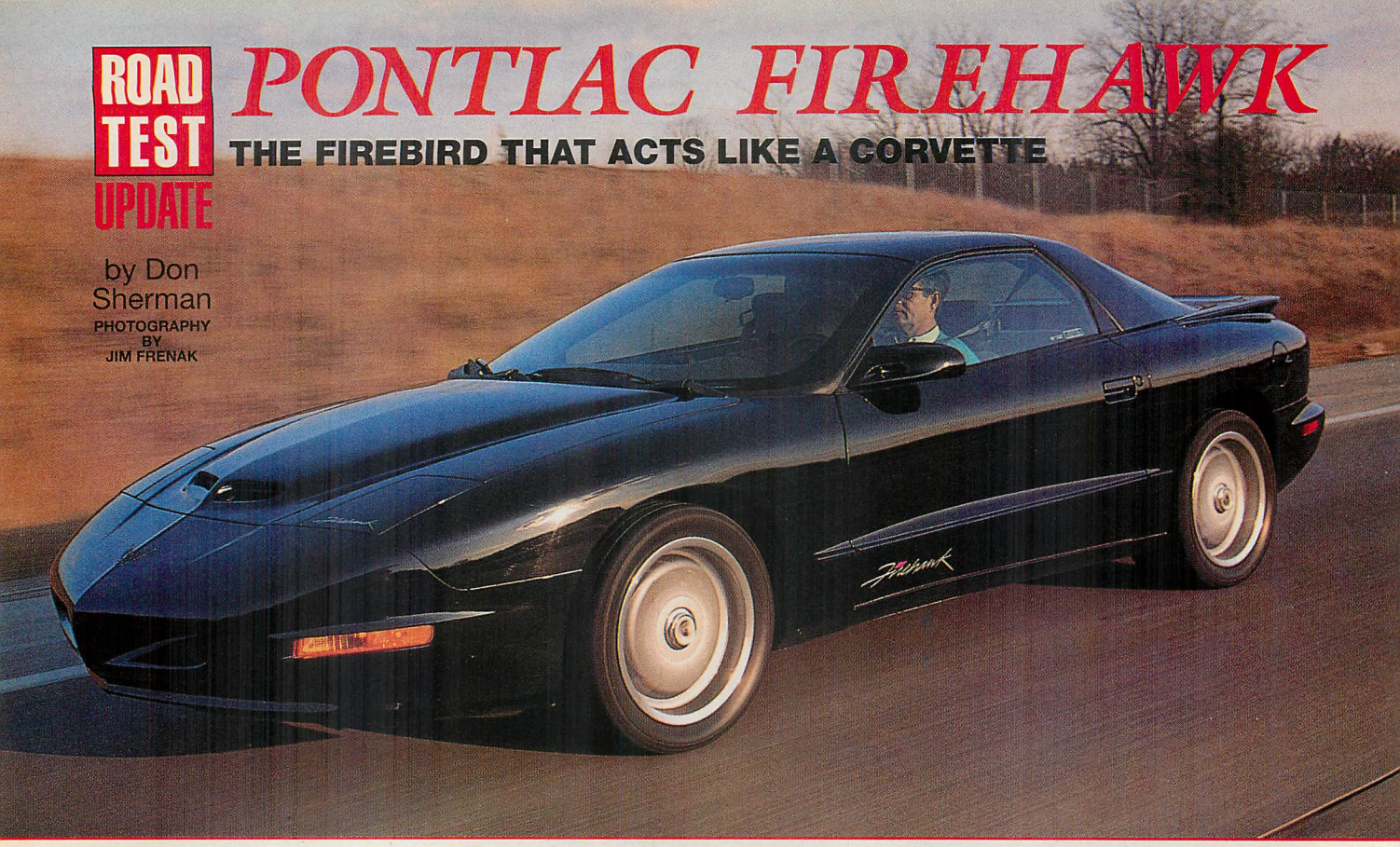
ROAD TEST UPDATE

PONTIAC FIREHAWK

THE FIREBIRD THAT ACTS LIKE A CORVETTE

by Don Sherman

PHOTOGRAPHY BY JIM FRENAK



Ed Hamburger, the chief cook and bottle washer at SLP (Street Legal Performance, Tom's River, New Jersey), is back with another hot Firebird. Last year's run of 250 Firehawks sold out in a flash, so the conversion line has been programmed to preen the feathers of twice as many birds for '94. Like last year, the core automobile is a Firebird Formula with the customer's choice of six-speed manual or four-speed automatic transmissions. To that SLP adds:

- A twin-nostril fiberglass hood that rams air to the 5.7-liter V-8 through a modified Corvette filter element.
- Five-spoke ROH aluminum wheels that are 0.5 inch wider and 1 inch larger in diameter than stock.
- 275/40ZR17 Firestone Firehawk SZ radials that are wider and lower in profile than the Formula's Goodyear Eagle GS-C rubber.
- Twin stainless-steel exhaust tips.
- Four flashy Firehawk stickers to alert the unsuspecting.
- A serialized identification plate popriveted to the shift console.

In spite of demand that has outstripped supply to date, Hamburger held the line on price so the standard Firehawk package still costs $5995. In the event that your Pontiac dealer plays dumb to your desires, just speak these magic words to order a Firehawk conversion: GM option code R6V.

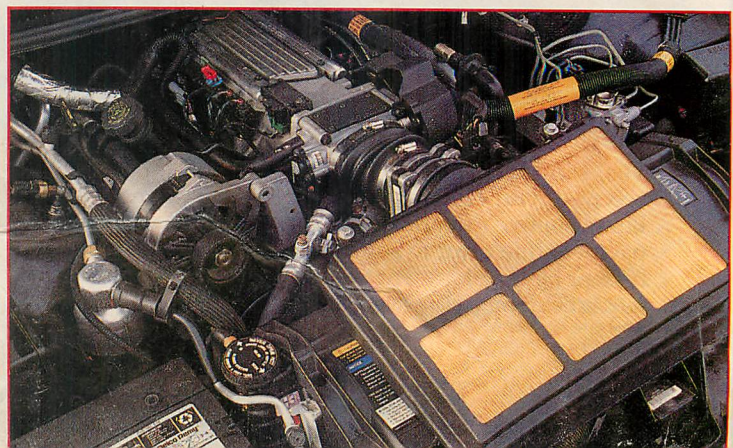
Two items are new for '94—a suspension package and a less-restrictive exhaust system. Gluttons for performance that we are, we tested a nasty black Firehawk equipped with everything SLP has to offer.

The $1495 suspension package includes four springs that stiffen wheel rates and lower the car by 0.75 inch, a larger front anti-roll bar, and stiffer bushings for front and rear control arms.

The $995 exhaust system consists of larger pipes and a new Powerflow muffler. According to Hamburger, this tacks 15 horsepower onto the 25-horsepower gain from the ram-air hood for a net power peak of 315 horses at 5000 rpm.

Twist the ignition key, and the Firehawk cackles with deep-throated authority. It rattles its pipes like a half-muffled NASCAR racer to alert all within range that this bird means business. On the roll, its repertoire varies from a subdued rumble while cruising to a Chris Craft-like gurgle when the throttle is floored in top gear. Breathing freely through SLP's intake and exhaust plumbing, the mighty 350-cubic-inch engine responds instantly and with rapt enthusiasm to the slightest tap of the throttle.

The NASCAR analogy also fits the Firehawk's lack of road manners. The wide boots lock onto longitudinal pave-



ment grooves, momentarily ignoring instructions from the steering wheel. Riffled asphalt occasionally sends the rear axle into a tramping tizzy. SLP's stiffer suspension settings erase much of the poise that was carefully tuned into the Firebird by the factory, so don't choose this option if your neighborhood is fraught with poorly maintained road surfaces.

The good news is that the Firehawk grabs at smooth pavement like a vulture gathering road-kill. Unfortunately, we had no access to a skidpad to cross-check SLP's 0.93g cornering adhesion claim. But based on this car's aggressive turn-in and the way it blitzes the slalom cones, that doesn't sound like boasting.

This car has the unshakable balance of a ballerina, so if the tail isn't demonstrating the desired amount of drift, it's a simple matter to step on the gas to order more. With a speed of 68.8 mph through our 600-foot slalom course, the Firehawk handily embarrasses several of the $60,000-and-up blueblood sports cars we've tested.

The Firehawk is also a hard charger in the acceleration mode. That we expected. What surprised us was that last year's figures were slightly quicker in spite of the 15-horsepower increment supplied by the new, low-restriction exhaust system. The '93 Firehawk posted a 0-60 time of 4.9 seconds and a quarter-mile ticket of 13.5 seconds at 103.5 mph. This year, our best results were 5.3 seconds for the 0-60 sprint and a quarter-mile performance of 13.9 seconds at 102.1 mph.

There are a number of possible explanations for this. First, the '94 Firehawk came with shaved tires, which may have hampered traction. Pontiac added a new mass-airflow sensor between the air filter and the intake manifold, which may have wounded the torque curve slightly, even though stock horsepower and torque ratings are unchanged. Further, the slightly lower center of gravity and stiffer suspension calibrations diminish load transfer during acceleration, making the Firehawk slightly more susceptible to wheelspin. Finally, last year's Firehawk may have been a particularly feisty example of the breed while this year's car could've been, statistically speaking, a more average specimen.

Instead of dwelling on figures that don't add up logically, it makes more sense to consider the Firehawk for what it is, a cost-effective extension of the regular Firebird's personality. This machine kicks butt with size-12 boots. It powerslides like a sprint car. It's more fun to drive and own than the mass-produced Formulas and Trans Ams, and every kid on the block won't own one. The price for that pleasure—a rougher ride, a noisier exhaust note, and $7490—isn't cheap, but have you checked the window sticker on a Corvette, Porsche, or Supra Turbo lately? MT

TECH DATA

Pontiac Firehawk

GENERAL/POWERTRAIN

Body style	Coupe, 4-passenger
Vehicle configuration	Front engine, rear drive
Airbag	Dual
Engine configuration	V-8, OHV, 2 valves/cylinder
Engine displacement, ci/cc	350/5737
Horsepower, hp @ rpm, SAE net	315 @ 5000
Torque, lb-ft @ rpm, SAE net	342 @ 2400
Transmission	6-speed manual
Axle ratio	3.42:1

DIMENSIONS

Wheelbase, in./mm	101.1/2568
Length, in./mm	195.6/4968
Base curb weight, lb	3447
Fuel capacity, gal	15.5
Fuel economy, EPA city/hwy., mpg	17/25

CHASSIS

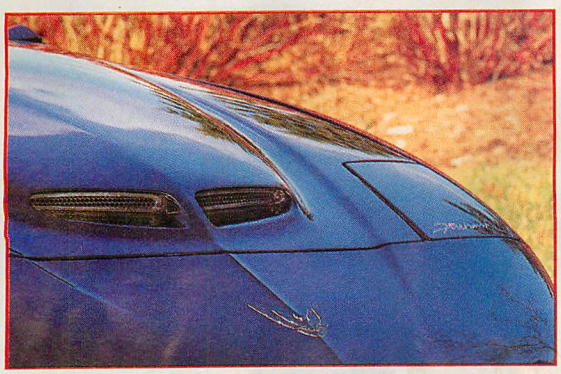
Suspension, f/r	Independent/live axle
Steering	Rack and pinion, power assist
Brakes, f/r	Vented discs/vented discs
Wheels	17 x 8.5, cast aluminum
Tires	275/40ZR17, Firestone Firehawk SZ

PERFORMANCE

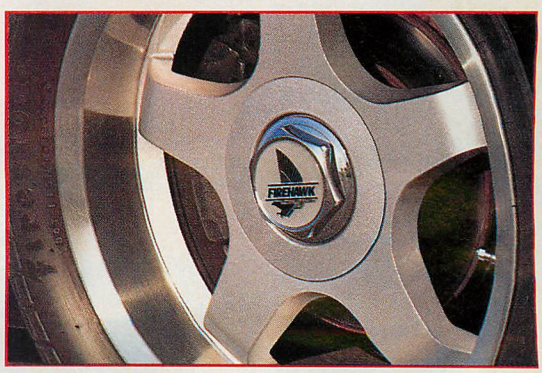
Acceleration, 0-60, sec	5.3
Quarter mile, sec/mph	13.9/102.1
Braking, 60-0, ft	112
Slalom, 600-ft, mph	68.8

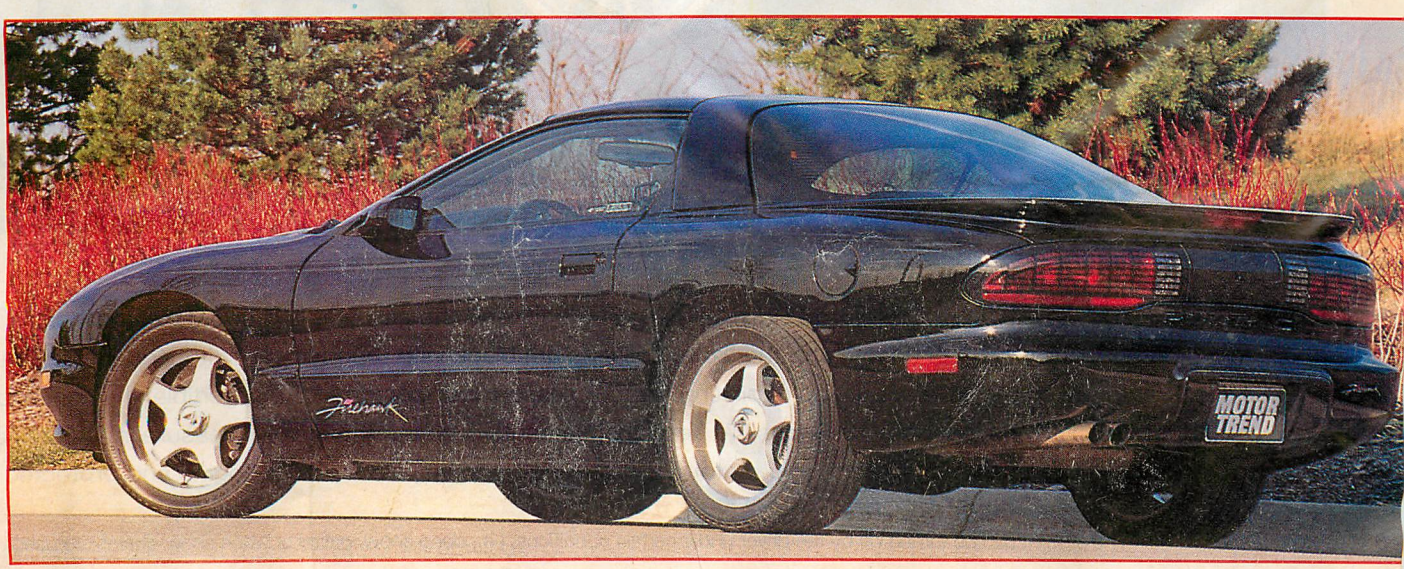
PRICE

Base price	$24,134
Price as tested	$27,114

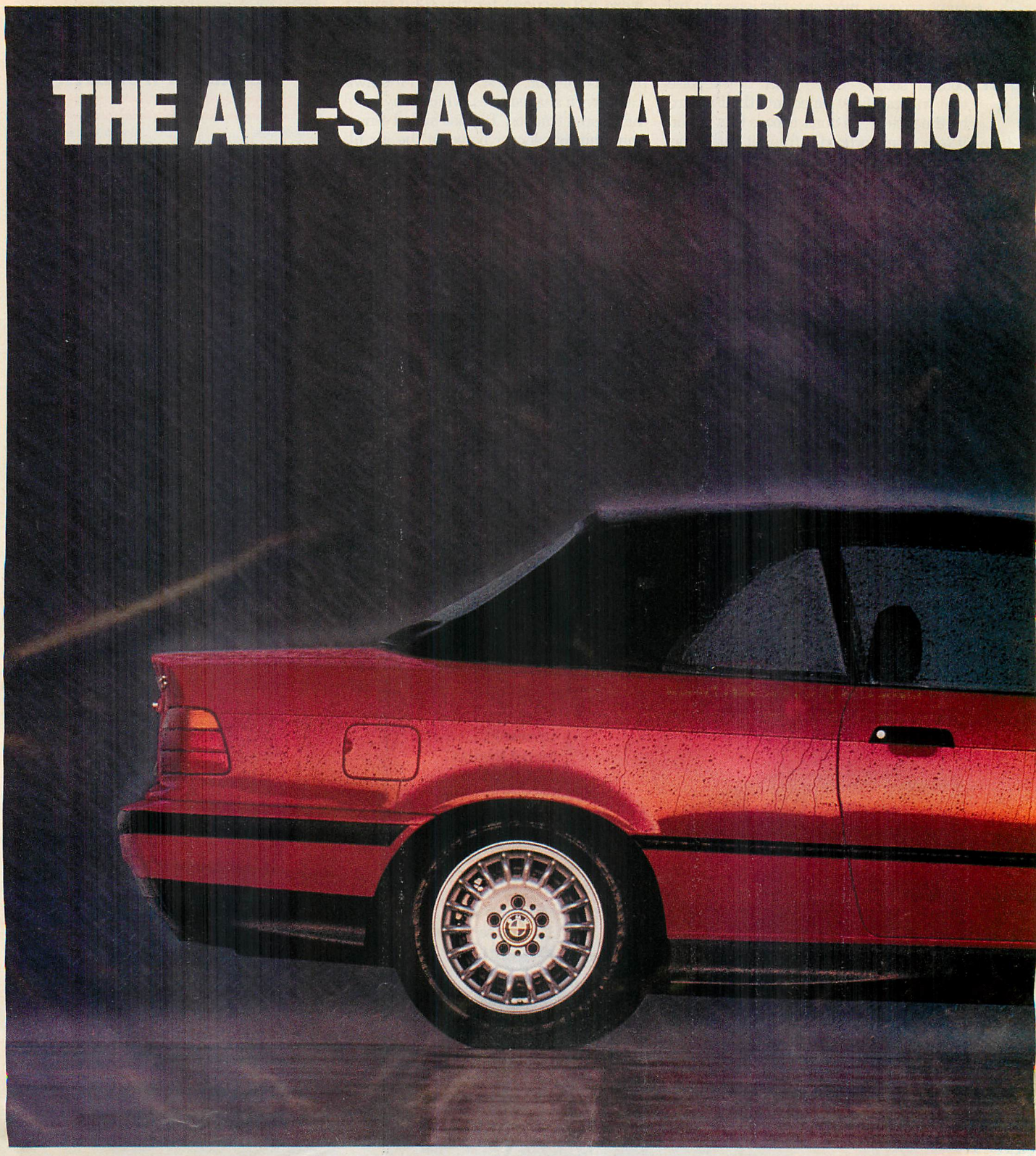


SLP pops the stock Firebird hood inside out, punches a dozen water drainage holes, and plumbs two nostrils to feed the hungry 5.7-liter V-8 through a Corvette filter element.





THE ALL-SEASON ATTRACTION



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The Last Roundup

WHEN THE '95 MODEL YEAR RIDES INTO TOWN, THESE LITTLE DOGGIES WILL BE ON BOOT HILL. SHOULD YOU ADD ONE TO YOUR CORRAL?

by Daniel Charles Ross

When you love cars, as we do, you always want to know what's coming, what the Next Big Thing is going to be. This is more than natural curiosity. You keep an eye out for this information because: 1) You want to buy the Next Big Thing instead of the current model it'll soon replace, or 2) You want to buy the old car before it disappears.

Vehicles in their final model year, about to undergo major change, replacement, or cancellation still serve a useful role. Manufacturers typically bump up incentive and rebate programs to blow these soon-to-be "obsolete" products off dealer shelves in preparation for the replacements. Often, the best possible purchase deals are available at this time.

We canvassed car makers to find a group of vehicles that'll be going out of production, in one way or another, at the end of the model year. Some are being replaced by all-new models (with and without the same names), but a few are being discontinued altogether. Things to consider: There are still many months left in the '94 model year in which to make a decision—either to buy now or to wait. In many cases, '94s will still be found on dealer lots concurrent with '95s well into the fall. Waiting until the last minute to make a choice means the supply of '94s will be greatly reduced, but it also means your purchase price will probably be lower still. With this last roundup, though, you're better able to map out a plan. All that's left is to ride into town at dawn and rope one.

Acura Vigor

We like the accurately named Vigor for its style, grace under pressure, and luxury amenities at a reasonable price in the mid-to-high 20s. The front-driver received dual airbags as standard equipment in '94, a welcome upgrade, and it already offered anti-lock brakes. It has a race-bred double-wishbone suspension at all four corners and speed-sensitive, variable-rate power-assisted rack-and-pinion steering. Power is derived from an inline five-cylinder 2.5-liter engine with fuel injection producing a useful 176 horsepower, turning either a five-speed stick or four-speed automatic transmission. Base-price range: $26,350-$29,100. Status for '95: Redesigned, believed to be retaining same name.

Chevrolet Cavalier/Pontiac Sunbird

Chevy's Cavalier and Pontiac's Sunbird have tipped the balance of power in small American cars, helping prove that buyers returning to domestic iron are finding good quality and solid value. The Chevy comes in four models and the Pontiac in three. The Cavalier's base engine is a 120-horsepower 2.2-liter four; the Sunbird's is a 110-horse 2.0-liter four. Both offer an optional 3.1-liter 140-horse V-6, and standard five-speed manual or an optional three-speed automatic. Base-price range: Cavalier, $8845-$19,995; Sunbird, $9764-$15,524. Status for '95: Both cars will be extensively revamped bumper-to-bumper. The Cavalier name stays; the Sunbird will be called the Sunfire.

Chevrolet Lumina

This is the last chance to get a Lumina coupe, as the next car will be available only in sedan form. Base five-passenger coupes and six-passenger sedans come out of the chute powered by GM's 3.1-liter V-6 of 120 horsepower. Other standard equipment includes four-corner power disc brakes with ABS. The Z34 coupe brings 210 horses. All Luminas deliver the goods through a standard four-speed electronically controlled automatic transmission turning the front wheels. This is a useful mid-size car with a real trunk, and room for full-sized adults. Base-price range: $15,305-$19,310. Status for 95: The sedan gets a thorough redesign and the same name. The coupe will be named the Monte Carlo.

Chevrolet S-10 Blazer/GMC Jimmy

These downsized brothers of the full-size Chevy Blazer and the GMC Yukon have remained popular since their '83 debut. They come in two- or electronic shift-on-the-fly four-wheel drive, with the same engine in two flavors. The base LB4 version of GM's 4.3-liter six produces 165 horsepower coupled to a five-speed; the R8Y Enhanced Powertrain version whips up 200 attached to a 4L60-E wide-ratio four-speed automatic. Either powertrain and both drive configurations comes in two- or four-doors. Power front-disc/rear-drum brakes offer four-wheel ABS. Base-price range: S-10 Blazer, $15,438-$18,962; Jimmy, $15,639-$19,298. Status for '95: All-new sheetmetal on slightly refined chassis. No name changes.

Diamond-Star Coupes

The trio of hot sport coupes built in Illinois, sold as Eagle Talon, Plymouth Laser, and Mitsubishi Eclipse, range from mild to wild. The engines include an economical 92-horsepower 1.8-liter four, a high-fun 2.0-liter twin-cam with 16 valves making 135 horses, and the knockout 2.0-liter 16-valve turbo presenting 195 horses with the five-speed (180 with an electronically controlled four-speed automatic). Front- or all-wheel-drive models are available, all with four-wheel power disc brakes and optional ABS. Base-price range: Eclipse, $11,979-$22,089; Laser, $11,542-$17,572; Talon, $11,892-$17,978. Status for '95: Major redesign. The Laser is dropped. The Eclipse and Talon retain their names.

Dodge Shadow/Plymouth Sundance

Chrysler says these are the only V-6-powered compacts under $10,000, and though on the endangered species list, they sell like hotcakes. The SOHC 3.0-liter six of 141 horsepower pulls the front-driver through the traps like a sports car, but the 100-horse twin-cam 2.5-liter four and a base SOHC 2.2-liter four grant more economical choices. Transmissions include a five-speed manual (recommended), and three- and four-speed automatics. A driver-side airbag is standard. ABS is optional. The ragtop's already gone, but two- and four-door hardtops remain. Base-price range: Shadow, $8806-$10,652; Sundance, $8806-$11,446. Status for '95: Platforms and nameplates will be discontinued, replaced by the all-new Dodge/Plymouth Neon.

Dodge/Plymouth Colt

The identical Colt subcompacts from Dodge and Plymouth are scheduled to be absorbed into the Eagle franchise as Summits next year, so Chrysler's lowest-priced cars should be even better values as leftover '94s. Only two engine choices here, both four-cylinders: a 92-horsepower 12-valve 1.5-liter and a 113-horse 16-valve 1.8-liter. The model range offers a standard five-speed manual transmission, but three- and four-speed automatics are available. The driver gets a standard airbag, and ABS is optional. These are highly styled two- and four-door automobiles that won't look old and tired next year. Base-price range: $9120-$12,181. Status for '95: No substantial changes. Will be sold as Eagle Summits.

Ford Tempo/Mercury Topaz

These familiar cowboys are ready for that Big Saloon in the Sky. Introduced as '85 models with one major freshening in '88, the compacts offer solid transportation value powered by either a base 2.3-liter four making 96 horsepower or the optional 3.0-liter six of 130 horsepower. A driver-side airbag is optional only on four-cylinder, automatic cars; passive shoulder belts with a manual lap belt are provided in all others. These are roomy, five-passenger vehicles for those with an appreciation for a traditionally styled American car. Base-price range: Tempo, $10,735-$12,560; Topaz, $11,270. Status for '95: Both platforms and nameplates will be canceled, replaced by the upmarket Ford Contour and Mercury Mystique.

Geo Metro

This is the least-expensive passenger product sold in all the GM kingdom, changing next year when the vendor goes from Isuzu to Suzuki (though Metros are built in the CAMI joint-venture plant in Ontario, Canada). For now, Metro models have perennially been high-mileage champs due to a fuel-sipping SOHC 1.0-liter inline three-cylinder delivering only 55 horsepower—but 45/50 city/highway fuel economy in the XFi model. The front-drive subcompact is basic transportation with a tiny bit of sportiness behind the standard five-speed stick, independent suspension and power brakes. Base-price range: $7195-$7695. Status for '95: Expected to carry the same name as an all-new car.

Jaguar XJ Sedan

For many observers, the Jaguar's principal appeal is its striking style. Conventional, but in this car that's a pro, not a con. Stuffed under the hood in the flagship XJ12 is a spectacular 301-horsepower SOHC 6.0-liter V-12; XJ6 and Vanden Plas editions are provided with a DOHC 24-valve 4.0-liter inline-six engine promoting 219 horsepower. Both front passengers now have airbags, and cupholders are integrated into the perfectly finished center armrest. Fully independent suspension, power four-wheel disc brakes with Teves ABS, and a whole new attitude are standard equipment. Base-price range: $51,750-$73,200. Status for '95: Will return with a substantial redesign along classic lines and most likely have the same name.

Lincoln Continental

The '94 Connie had a minor revision that updated the nose and tail until the all-new car could arrive for '95. It's a luxurious package, priced accordingly, and about everything is standard except rear-wheel drive. Power is satisfactory from the sole engine offering, a 3.8-liter V-6 yielding 160 horsepower. Though providing less motivation than its competition, benefits include surprisingly good torque and better fuel economy than an eight-cylinder might afford. Dual airbags, four-wheel power discs with ABS, and electronically controlled air-spring suspension are standard equipment. Base-price range: $33,750-$35,600. Status for '95: Heavily restyled, offering the platform's first V-8. The name remains.

Mazda 323

Defining the entry level at Mazda, the front-drive 323 econocar lists for less than $8400. Though the chassis was developed to be shared with Ford Motor's Escort/Tracer, Mazda's sleekly attractive sheetmetal, unique interior and proprietary powerplant set it well apart. The four-cylinder SOHC 1.6-liter generates 82 horsepower, with fuel economy figures of 29/37 city/highway when bolted to the standard five-speed manual transmission. A four-speed automatic is available. There are no airbags and no ABS, in keeping with it's cost-effective nature, but front bucket seats and rack-and-pinion steering are standard equipment. Base-price: $8395. Status for '95: All-new, likely to debut with current nameplate.

Nissan 240SX Convertible

The new version of this car may already be on sale by the time you read this, making the "old" '94 240SX ragtop an interesting buy. Its front-mounted DOHC 16-valve 2.4-liter four-banger, the only offering in the platform, produces an energetic 155 horsepower. Gears are changed by the standard (no manual is offered) electronically controlled four-speed automatic directing the power to the rear wheels. No airbags or ABS are offered, but four-wheel power disc brakes and a high-performance suspension are standard. The power-operated top folds back neatly and stacks low. Base-price: $23,969. Status for '95: All-new car, but retaining name. Coupe only for '95 with a ragtop following a year or two later.

Nissan Maxima

This familiar Nissan flagship comes with a choice of two powerful sixes and lots of performance. The base SOHC 3.0-liter 12-valve engine produces 160 horsepower (GXE), and the aggressive DOHC 24-valve motor of the same displacement huffs up a fun 190 (SE). A driver-side airbag is standard, and ABS is optional in both models (SE gets standard disc/disc brakes, GXE standard disc/drum). In addition to power improvements, the high-performance SE model also enjoys subtle cosmetic differences from the GXE luxo-model, such as driving/fog lights, a rear-deck spoiler, unique wheels, and faster tires. Base-price range: $22,199-$24,234. Status for '95: Will return as a completely new platform and will probably keep its current name.

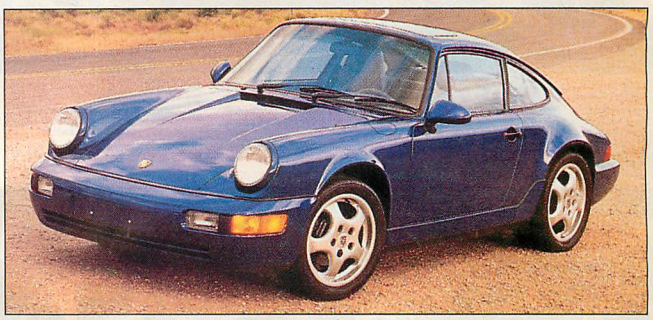
Nissan Sentra

In a spectrum of five trim/performance levels across a lineup of a coupe and a sedan, the Sentra squad fits niches for every driver in your posse. The entry-level engine is a 110-horsepower twin-cam four-cylinder available in the E, XE, GXE, and SE models. The high-performance SE-R comes with Nissan's DOHC 2.0-liter 16-valve four making a lusty 140 horsepower. The line's standard transmission is a five-speed, with an option for a four-speed automatic, except in the street-racer SE-R pocket rocket. A driver-side airbag is standard in the GXE, optional in all other models. Base-price range: $10,049-$15,469. Status for '95: Expect an all-new car to debut before the end of January 1995, as a '96 model.

Plymouth Acclaim/Dodge Spirit/Chrysler LeBaron

The era of the boxy Chrysler sedan is drawing to a close next year, which is fine, but the mid-size Acclaim and Spirit never got the marketplace attention they deserved. These are high-value six-passenger people movers with front-drive and good fuel economy. Power starts at 100 horses from a 2.5-liter inline-four. An optional SOHC 3.0-liter V-6 offers 142 horsepower. Brakes are power discs in front and drums in rear, with an option for ABS. The driver gets an airbag. These cars are conservative, but worth a look. Base-price range: $12,470-$13,649. Status for '95: Present platform will be canceled at all three divisions. Niche to be filled by all-new unnamed JA-platform cars.

Porsche 911



After 30 years of production, Porsche's first-team of 911 sports cars is available in five models with two different engines, three drivetrain configurations, and five body styles. Models: Carrera 2, 911 Speedster, RS America, Carrera 4, Turbo; engines: two 3.6-liter flat-sixes, one a normally aspirated 247-horsepower and the other a 355-horsepower monster turbo; drivetrains: rear- or all-wheel drive, with either a five-speed manual or four-speed Tiptronic automatic; body styles: Coupe, Wide-body Coupe, Speedster, Cabriolet, and Targa. Rear engine, rear drive, high performance, big fun. Base-price range: $54,800-$99,000. Status for '95: Will be replaced by a redesigned car of the same name.

Volkswagen Passat

When Volkswagen dropped its new DOHC 2.8-liter V-6 of 172 horsepower into the staid-looking Passat sedan and wagon, it transformed their performance aptitude from that of work-a-day commuter cars into near BMW-grade sportsters. The cup runneth over with high-interest standard equipment, including bucket seats, BBS sport wheels, traction control for front-drive wheels (a necessity!), and four-corner power disc brakes with ABS—dual airbags, too. Rowing through the standard five-speed transmission on back-country S-curves is loads of fun, and there's room for five. Bravo. Base-price range: $23,075-$23,500. Status for '95: An all-new car is scheduled, supposedly bearing the current name.

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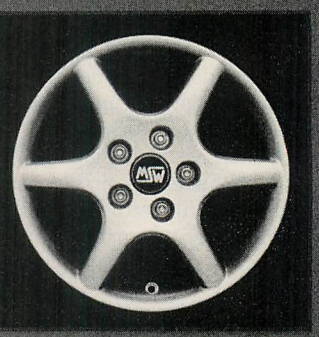
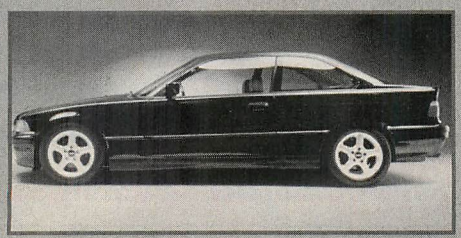
MODA M2
Size: 17"
Fits: BMW, Chrysler, Eagle, Ford Probe, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Porsche, Toyota Supra '93.
Finish: Silver center with polished lip and clearcoat.
Call For Pricing.



MSW TYPE 55
Fits: Acura, Audi, Buick, BMW, Cadillac, Chevrolet, Chrysler/Dodge, Eagle, Ford, Honda, Hyundai, Infiniti, Isuzu, Lexus, Mazda, Mercedes, Mercury, Mitsubishi, Plymouth, Saturn, Sterling, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Price per wheel:
13" $133 ea. 14" $149 ea. 15" $169 ea.
16" $200 ea. 17" $247 ea.

MSW® MOTOR SPORT WHEELS

MODA MO
Size: 15, 16, 17"
Fits: Acura, Audi, BMW, Chrysler/Dodge, Eagle, Ford Probe, Honda, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Saturn, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Price per wheel:
Silver 15"..$209 ea. 16"..$259 ea. 17"..$299 ea.
Chrome 15"..$359 ea. 16"..$409 ea. 17"..$449 ea.



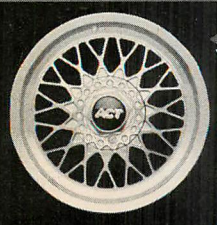
BMW 325is with 16" moda mo.

MSW TYPE 44
Fits: Acura, Audi, Buick, BMW, Cadillac, Chevrolet, Chrysler/Dodge, Eagle, Ford, Honda, Hyundai, Infiniti, Isuzu, Lexus, Mazda, Mercedes, Mercury, Mitsubishi, Nissan, Plymouth, Saturn, Sterling, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Price per wheel:
14" $149ea. 15" $169 ea. 16" $200 ea.

MSW TYPE 31
Fits: Acura, Audi, BMW, Eagle, Ford, Honda, Infiniti, Lexus, Mazda, Mercedes, Mercury, Mitsubishi, Nissan, Plymouth, Saturn, Toyota, VW
Finish: Silver center with polished lip and clearcoat.
Price per wheel:
13" $89 ea. 14" $149 ea.
15" $169 ea. 16" $200 ea.

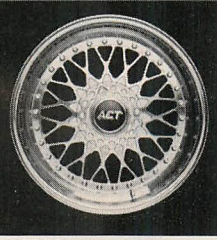
MSW TYPE 21
Fits: Acura, BMW, Eagle, Ford, Honda, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Saturn, Toyota, VW.
Finish: Polished face and lip with silver or gold accents and clearcoat.
Price per wheel:
14" $149 ea. 15" $169 ea. 16" $200ea.

ACT



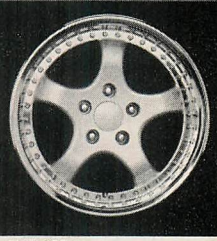
ACT LS
Size: 15, 16"
Fits: Acura, Audi, BMW, Ford, GM (FWD), Honda, Infiniti, Lexus, Mazda, Mercedes, Toyota, VW.
Finish: Polished face and lip with silver accents and clearcoat.
Package Example: (4) 15x7.5 wheels with (4) 205/60VR-15 Pirelli P4000ST **$1,076**

ACT SX
Size: 19"
Fits: Acura, BMW, Camaro '93+, Mercedes.
Finish: Silver center with polished lip and clearcoat.
Call For Pricing.



ACT SC
Size: 15, 16, 17" Forged 3pc.
Fits: Acura, BMW, Corvette, Honda, Mercedes, Porsche, Volkswagen.
Finish: Polished face and lip with clearcoat.
Package Example: (4) 16x10 wheels with (4) 205/45ZR-16 Pirelli P700Z **$2,268**

Akt®



AKT C2T 3pc.
Size: 16, 17"
Fits: 911, 930, 944, Carrera 2/4, 928.
Finish: Silver with clearcoat.
Package Example:) (2) 17x8 and (2)17x9 wheels with (2) 225/45ZR-17 and (2) 255/40ZR-17 BFGoodrich Comp TA3 **$2,522**
(Center cap not included)

AKT MILANO SUPER SPOKE
Size: 15,16,17"
Fits: Acura, BMW, Honda, Infiniti, Lexus, Mazda, Mitsubishi, Nissan, Porsche, Saturn, Toyota, Volkswagen.
Finish: Silver center with polished lip and clearcoat, Porsche fitments silver with clearcoat.
Package Example:(4) 16x7 wheels with (4) 225/50R-16 Bridgestone RE940 **$1,460**

ANTERA

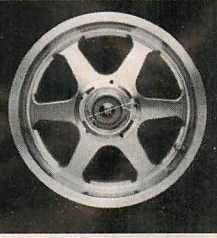
ANTERA 101
Size: 15, 16, 17, 18"
Fits: Audi, BMW, Honda, Mazda, Mercedes, Mitsubishi, Porsche, Volkswagen.
Finish: Silver with clearcoat.
Price per Wheel:
15" $209 ea. 17"..$325 ea.
16"..$259 ea. 18"..$423 ea.

centra®

CENTRA TYPE 27
Size: 15, 16, 17"
Fits: Acura, BMW, Ford, GM, Honda, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Toyota.
Finish: Polished face and lip with silver or anthracite accents and clearcoat. (Chrome plating available)
Package Example: (4) 16x7.5 wheels with (4) 225/50VR-16 Bridgestone RE940 **$1,428**

Mackin®

MANARAY SPORT MS-6
Size: 17, 18" Forged 3pc.
Fits: Supra '93+, Stealth (Non Turbo), RX7 '93+.
Finish: Polished face and lip with clearcoat.
Package Example: (2) 18x8.5 and (2) 18x10 wheels with (2) 245/40ZR-18 and (2) 265/35ZR-18 Pirelli PZero **$4,150**



MACKIN C2T
Size: 17"
Fits: 911, 930, 944, Carrera 2/4, 928.
Finish: Silver with clearcoat.
Package Example: (2) 17x8 and (2) 17x9 wheels with (2) 225/45ZR-17 and (2) 255/40ZR-17 BFGoodrich Comp T/A **$2,012**
(Center Cap Not Included)

RUF

MACKIN C2T
Size: 17"
Fits: 911, 930, 944, Carrera 2/4, 928.
Finish: Silver with clearcoat.
Package Example: (2) 17x8 and (2) 17x9 wheels with (2) 225/45ZR-17 and (2) 255/40ZR-17 BFGoodrich Comp T/A **$2,012**
(Center Cap Not Included)

RUF CARRERA 911
Size: 17,18"
Fits: 911, 930, 944.
Finish: Silver center with polished lip and clearcoat.
Package Example: (2/4) (2) 18 and (2) 17x9 wheels with (2) 225/45ZR-17 (2 255/40ZR-17 Dunlop SP8000 **$3,614**

RUF CARRERA 2/4
Size: 17,18"
Fits: Porsche Carrera 2/4, 944 (S2/Turbo '87 +)
Package Example: (2/4) (2) 17x8 and (2) 17x9 wheels with (2) 225/45ZR-17 (2) 255/40ZR-17 Dunlop SP8000 **$3,474**

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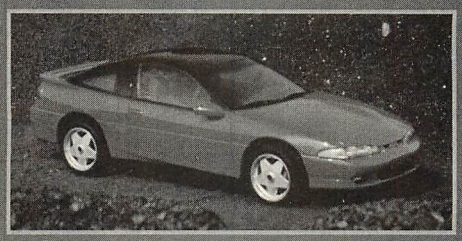
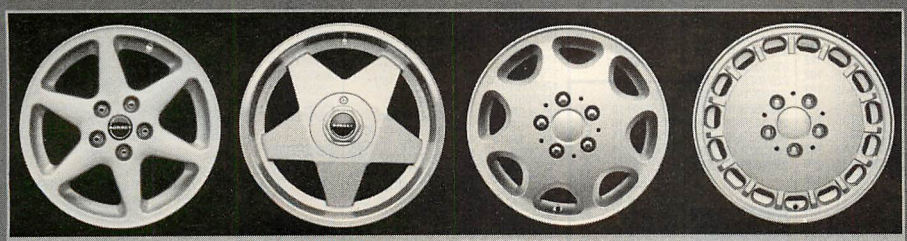
BORBET PROCAST
Size: 16"
Fits: Acura, Audi, Mazda, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Price per wheel:
16"..$213 ea.



Eagle Talon with 17" Borbet Type A.



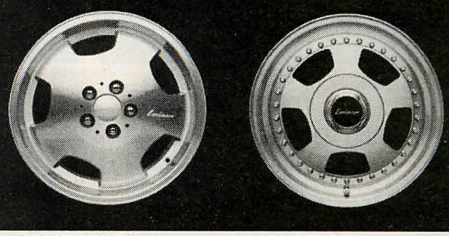
BORBET TYPE C
Size: 13, 14, 15, 16, 17"
Fits: Acura, Audi, BMW, Chrysler/Dodge, Eagle, Ford, Honda, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Saab, Saturn, Sterling, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Package Example: (4) 15x7 wheels with (4) 195/50ZR-15 Dunlop SP4000 **$1,132**

BORBET TYPE A
Size: 14, 15, 16, 17, 18"
Fits: Acura, Alfa, Audi, BMW, Chevrolet, Chrysler/Dodge, Eagle, Ford, Honda, Infiniti, Jaguar, Lexus, Mazda, Mercedes, Mercury, Mitsubishi, Nissan, Porsche, Saab, Saturn, Sterling, Toyota, Volkswagen.
Finish: Silver center with polished lip and clearcoat.
Package Example: (4) 16x7.5 wheels with (4) 225/55ZR-16 Pirelli P600 **$1,244**

BORBET REPLICA II
Size: 15, 17"
Fits: Mercedes, Lexus, Toyota Camry.
Finish: Silver with clearcoat or polished face and lip with silver accents and clearcoat.
Package Example: (4) 16x8 wheels with (4) 215/55VR-16 Pirelli P4000ST **$976**

BORBET REPLICA
Size: 15"
Fits: Mercedes
Finish: Silver with clearcoat.
Package Example: (4) 15x7 wheels with (4) 205/65HR-15 Dunlop D80V4 **$620**

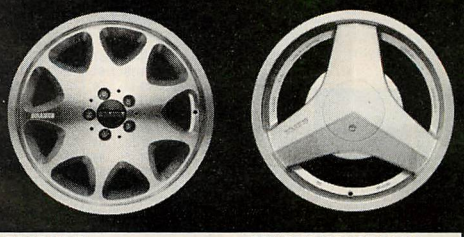
Lorinser



LORINSER RS90
Size: 15, 16, 17, 18, 19"
Fits: Mercedes.
Finish: Polished face and lip with silver accents and clearcoat. (Chrome plating available)
Price per wheel:
15"..$219 ea. 16"..$289 ea. 17"..$339 ea.
18"..$395 ea. 19"..$479 ea.

LORINSER RSK
Size: 16, 17"
Fits: Mercedes.
Finish: Silver center with polished lip and clearcoat.
Price per wheel:
16" $286 ea. 17" $311 ea.
SPECIAL

BRABUS



BRABUS III
Size: 17, 18, 19"
Fits: Mercedes "S" Class (92+), SL, 500E
Finish: Polished face and lip with silver accents and clearcoat.
Package Example: (4) 19x9.5 wheels with (4) 285/35ZR-19 Pirelli PZero **$5,181**

BRABUS MONOBLOCK
Size: 17, 18, 19"
Fits: Mercedes "S" Class (92+), SL, 500E
Finish: (Monoblock) Silver center with polished lip and clearcoat.
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NEW NEW

OZ MONTE CARLO
Size: 17"
Fits: Audi, BMW, Camaro '93+, Dodge, Eagle, Ford Probe, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Volkswagen.
Finish: Silver with clearcoat.
Package Example: (4) 17x8 wheels with (4) 235/40ZR-17 Pirelli P700Z **$2,144**

OZ VELOCE
Size: 15, 16, 17"
Fits: Acura, Audi, Chrysler/Dodge, Eagle, Ford, Honda, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Saturn, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Package Example: (4) 15x7 wheels with (4) 205/60VR-15 Bridgestone Turanza **$1,096**

OZ CORSA
Size: 15, 16, 17"
Fits: Acura, Audi, BMW, Cadillac, Eagle, Ford, Honda, Infiniti, Lexus, Mazda, Mercedes, Mercury, Mitsubishi, Nissan, Saturn, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Package Example: (4) 16x7.5 wheels with (4) 205/55VR-16 Bridgestone RE940 **$1,516**

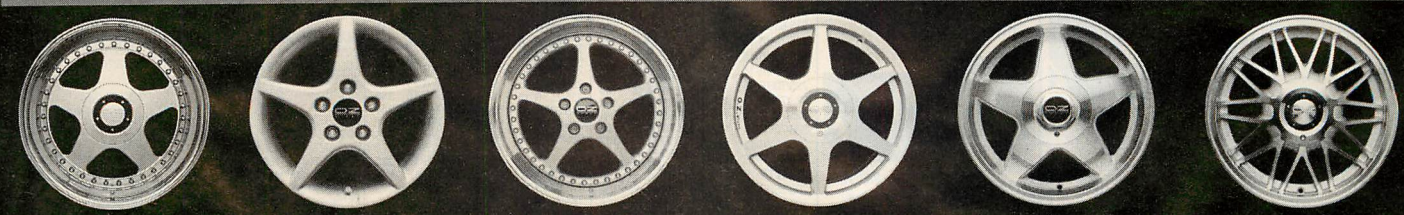
AMG

AMG AERO
Size: 15, 16, 17"
Fits: Mercedes Benz.
Finish: Silver with clearcoat.
Package Example: (4) 16x7.5 wheels with (4) 295/55ZR-16 Dunlop D40M2 **$2,124**

AMG AERO II (Monoblock)
Size: 15, 17"
Fits: Mercedes Benz.
Finish: Silver with clearcoat.
Package Example: (4) 15x7 wheels with (4) 195/65VR-15 Michelin MXV4 **$1,568**

AMG AERO 3pc.
Size: 16, 17"
Fits: Mercedes.
Finish: Silver center with polished lip and clearcoat.
Package Example: (4) 17x8.5 wheels with (4) 245/45ZR-17 Pirelli PZero **$5,272**

O·Z ITALY



OZ FUTURA MODULAR
Size: 16, 17, 18" 3pc. (Forged)
Fits: Acura, Audi, BMW, Corvette, Infiniti, Lexus, Lotus, Mazda, Mercedes , Porsche, Stealth.
Finish: Silver center with polished lip and clearcoat.
Package Example: (4) 17x10 wheels with (4) 275/40ZR-17 Goodyear GS-C **$3,396**

OZ MITO
Size: 14,15"
Fits: Acura, Audi, BMW, Eagle, Ford, Honda, Infiniti, Lexus, Mazda, Mercedes, Mercury, Mitsubishi, Nissan, Saturn, Toyota, Volkswagen.
Finish: Silver with clearcoat.
Package Example: (4) 14x6 wheels with (4) 185/60HR-14 Dunlop D60A2 **$836**

OZ MITO MODULAR
Size: 17, 18" 3 pc. (Forged)
Fits: Audi, BMW, Corvette, Ferrari, Infiniti, Lexus, Mazda, Mercedes, Mitsubishi, 300ZX, Porsche, Volkswagen (V6), Volvo.
Finish: Silver center with polished lip and clearcoat.
Package Example: (4) 17x8.5 wheels with (4) 235/45ZR-17 Dunlop SP8000 **$2,988**

OZ EVOLUTION
Size: 15, 16, 17"
Fits: Call for details - Limited Fitments.
Finish: Polished face and lip with clearcoat.
Special:
15"..$105 - 119 ea.
16"..$195 - 159 ea.
17"..$129 - 149 ea.

OZ PLUTON
Size: 14, 15, 16"
Fits: Acura, Audi, BMW, Chevrolet, Chrysler/Dodge, Eagle, Ford, Honda, Hyundai, Infiniti, Mercury, Mazda, Mitsubishi, Nissan, Saab, Toyota, VW, Volvo.
Finish: Polished face and lip with silver accents and clearcoat.
Package Example: (4) 14x6 wheels with (4) 195/60HR-14 Pirelli P500 **$876**

OZ FORZA
Size: 14, 15, 16
Fits: Acura, Audi, BMW, Cadillac, Chevrolet, Chrysler/Dodge, Eagle, Ford, Honda, Hyundai, Lexus, Mazda, Mercedes, Mitsubishi, Nissan, Saturn, Toyota, Volkswagen.
Package Example: (4) 15x7 wheels with (4) 205/65HR-15 Pirelli P4000ST **$1,132**

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AVS A+4 All-Season High Performance

195/60VR-15	80
205/60VR-15	90
215/60VR-15	92
235/60VR-15	105
205/55VR-16	115
225/50VR-16	122
255/50VR-16	115

A008P

195/65ZR-15	$100
215/60ZR-15	124
205/55ZR-16	183
225/50ZR-16	187
245/45ZR-16	197
205/50ZR-17	189
225/45ZR-17	197
255/40ZR-17	215

A008G

175/50VR-13	$70
245/50ZR-16	155
255/50ZR-16	113
225/40ZR-18	215
265/35ZR-18	242

A008

165/70HR-10	$60
175/70HR-12	72

AVS U+4 All-Season

185/60HR-14	$64
195/60HR-14	74
205/60HR-14	80
215/60HR-14	84
225/60HR-14	88
195/60HR-15	75
195/65VR-15	73
205/60HR-15	82
205/65HR-15	98
215/60HR-15	90
215/65HR-15	84
225/60VR-15	97
235/60HR-15	104
215/60HR-16	95
225/60HR-16	100

A008RS (Competition)

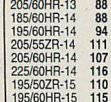
185/60HR-13	$83
185/70HR-13	83
205/60HR-13	88
185/60HR-14	88
195/60HR-14	94
205/55ZR-14	111
205/60HR-14	107
225/60HR-14	116
195/50ZR-15	110
195/60HR-15	115
205/50ZR-15	123
205/60HR-15	119
215/60HR-15	122
225/50ZR-15	130
205/55ZR-16	128
225/50ZR-16	136
245/45ZR-16	138
255/50ZR-16	138

A008RSII (Autocross Tire)

185/60SR-13	$84
185/60SR-14	89
205/55VR-14	112
205/50VR-15	124
215/60SR-15	123
225/50VR-15	131
205/50VR-15	124
225/50VR-16	137
245/45VR-16	140
255/50VR-16	140
275/40ZR-17	174
315/35ZR-17	186

AVS Intermediate

185/60VR-13	$65
205/60VR-13	81
185/60VR-14	71
195/60VR-14	80
195/65VR-14	78
205/55ZR-14	113
205/60VR-14	88
225/60VR-14	100
185/65VR-15	74
195/45ZR-15	94
195/50ZR-15	107
195/55ZR-15	121
195/60VR-15	86
195/65VR-15	85
205/50ZR-15	125
205/55ZR-15	143
205/60VR-15	97
205/65VR-15	95
215/50ZR-15	139
215/60VR-15	107
215/65VR-15	103
225/50ZR-15	143
225/60VR-15	112
235/60VR-15	117
255/45ZR-15	157
285/40ZR-15	179
345/35ZR-15	211
195/50ZR-16	120
205/50ZR-16	138
205/55ZR-16	152
225/45ZR-16	155
225/50ZR-16	155
225/55ZR-16	192
235/50ZR-16	164
235/60ZR-16	128
245/45ZR-16	166
245/50ZR-16	155
255/50ZR-16	163
215/40ZR-17	146
215/50ZR-17	165
235/45ZR-17	174
245/40ZR-17	181
255/40ZR-17	184
275/40ZR-17	184
245/40ZR-18	315



A378 All -Season Touring Tire

175/70HR-13	$43
185/70HR-13	47
185/60HR-14	54
185/70HR-14	48
195/60HR-14	59
195/70HR-14	51
205/70HR-14	54
215/60HR-14	68
215/70HR-14	56
195/60HR-15	66
205/60HR-15	68
205/65HR-15	67
215/60HR-15	74
215/65HR-15	70
215/70HR-15	60
235/60HR-15	75
235/70HR-15	67
215/60HR-16	77
225/60HR-16	75

A509

185/60HR-13	$57
205/60HR-13	61
185/60HR-14	56
195/60HR-14	63
205/60HR-14	70
225/60HR-14	74
195/50VR-15	84
195/60HR-15	66
205/50VR-15	114
205/60HR-15	72
205/65HR-15	72
205/65VR-15	70
215/60HR-15	78
215/65HR-15	74
215/65VR-15	76
225/50VR-15	112
225/60VR-15	84
205/55VR-16	122
225/50VR-16	124
245/50ZR-16	124
255/50ZR-16	130

Y352

295/50HR-15*	$115

Turanza H/V All-Season Touring Tire

185/60HR-14	C
185/70HR-14	A
195/60HR-14	L
195/65HR-14	L
195/65VR-14	
195/70HR-14	
205/70HR-14	F
215/70HR-14	O
185/65HR-15	R
195/60HR-15	
195/65HR-15	P
195/65VR-15	R
205/60HR-15	I
205/65HR-15	C
205/65VR-15	I
215/60HR-15	N
215/65HR-15	G
215/70VR-15	
225/60VR-15	
215/60VR-16	
225/60VR-16	

Turanza S All-Season Touring Tire

175/70SR-13	C
185/70SR-13	A
185/70SR-14	L
195/70SR-14	L
205/70SR-14	
205/75SR-14*	F
215/60SR-14	O
215/70SR-14	R
205/60SR-15	
205/65SR-15	
205/70SR-15*	P
215/60SR-15	R
215/65SR-15	I
225/70SR-15	C
215/60SR-16	I
225/60SR-16	N
	G

DUNLOP OUTPERFORMS

SP Sport 4000 All -Season

195/50ZR-15	$112
205/50ZR-15	142
205/55ZR-15	118
215/50VR-15	127
225/60ZR-15	115
205/55ZR-16	126
225/50ZR-16	139
225/55ZR-16	179
225/60VR-16	124
245/45ZR-16	173
245/50ZR-16	153
255/50ZR-16	159

D40 M2

195/55VR-14	$98
195/50ZR-15	96
195/65VR-15	99
205/50ZR-15	122
205/55ZR-15	102
205/60VR-15	103
205/65VR-15	103
215/60ZR-15	105
225/50ZR-15	138
225/60ZR-15	107
235/60VR-15	109
205/55ZR-16	129
225/50ZR-16	124
225/55ZR-16	154
225/60VR-16	115
245/45ZR-16	149
245/50ZR-16	146
255/50ZR-16	152
215/45ZR-17	147
235/45ZR-17	174
245/45ZR-17	181
255/40ZR-17	184
275/40ZR-17	184
245/40ZR-18	315

SP Sport 8000

195/55ZR-14	$105
195/50ZR-15	115
195/55ZR-15	129
205/50ZR-15	148
205/55ZR-15	126
215/50ZR-15	161
225/50ZR-15	163
245/50ZR-15	171
205/55ZR-16	155
215/55ZR-16	169
225/40ZR-16	158
225/45ZR-16	188
225/50ZR-16	170
225/55ZR-16	169
245/45ZR-16	189
245/50ZR-16	180
255/50ZR-16	186
205/50ZR-17	169
215/45ZR-17	203
225/45ZR-17	212
235/45ZR-17	200
245/40ZR-17	212
255/40ZR-17	225
255/45ZR-17	213
265/40ZR-17	234
275/40ZR-17	229
315/35ZR-17	285
335/35ZR-17	317
225/40ZR-18	319
235/40ZR-18	329
255/35ZR-18	375
255/45ZR-18	399
265/35ZR-18	370
285/35ZR-18	399
255/40ZR-19	440

D80 V4 All -Season

205/65HR-15	$55
205/65VR-15	106
215/65VR-15	112

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P4000 Super Touring

185/70HR-13	$60
185/60HR-14	72
185/70HR-14	64
195/60HR-14	75
195/60VR-14	80
195/65HR-14	74
195/70HR-14	67
205/70HR-14	72
195/60HR-15	81
195/65HR-15	82
205/60HR-15	86
205/60VR-15	90
205/65HR-15	84
205/65VR-15	89
215/60HR-15	90
215/60VR-15	96
215/65HR-15	88
215/65VR-15	96
225/60VR-15	96
215/55VR-16	119
225/60HR-16	92
225/60VR-16	119

D60 A2

175/70HR-13	$48
185/70HR-13	51
185/60HR-14	51
185/70HR-14	55
195/60HR-14	52
195/70HR-14	43
205/60HR-14	56
205/70HR-14	61
185/65HR-15	59
195/60HR-15	54
195/65HR-15	63
205/50HR-15	84
205/60HR-15	57
205/65HR-15	65
215/60HR-15	60
215/65HR-15	69
225/60HR-15	63
205/55HR-16	95
215/60HR-16	87
225/60HR-16	92

P500 All-Season

175/70HR-13	$55
185/70HR-13	56
185/60HR-14	67
185/70HR-14	60
195/60HR-14	70
195/70HR-14	62
205/60HR-14	71
205/70HR-14	70
215/60HR-14	75
225/60HR-14	75
185/65HR-15	71
195/60HR-15	74
195/65HR-15	74
205/60HR-15	78
205/65HR-15	77
215/60HR-15	83
215/65HR-15	81
225/60HR-15	84
235/60HR-15	85

P4/P44

145 SR-12	$34
155 SR-12	35
145 SR-13	37
155 SR-13	31
155/80SR-13	31
165 SR-13	33
165/80SR-13	33
175 SR-13	45
175/70SR-13*	45
175/80SR-13*	50
185/70SR-13	49
185/80SR-13*	55
175 SR-14	46
185 SR-14	48
185/70SR-14	54
185/75SR-14*	65
195/70SR-14*	56
195/75SR-14*	68
205/70SR-14	61
185/65SR-15	56
185/65SR-15	53
205/65SR-15	62
205/75SR-15*	78
215/70SR-15*	80
215/75SR-15*	81
225/70SR-15*	89
225/75SR-15*	87

P3

145SR-10	$31
155SR-15	45

P300 All-Season

155/80SR-13	
165/80SR-13	C
175/80SR-13**	A
175/80SR-13	L
185/70R-13	L
185/80SR-13**	
185/80SR-13	F
185/70R-14**	O
185/70R-14	R
185/75R-14**	
195/70R-14**	P
195/70R-14	R
195/75R-14**	I
205/70R-14**	C
205/70R-14	I
185/65TR-15	N
195/65TR-15	G
205/70TR-15	
205/75TR-15**	
205/75TR-15**	
215/65TR-15	
215/70TR-15**	
215/75TR-15**	
225/75TR-15**	
235/75SR-15**	

P300APT All-Season

205/70TR-14*	Call
215/70TR-14*	Call
205/70TR-15*	Call
205/75TR-15	Call
215/75TR-15*	Call
225/70TR-15*	Call
225/75TR-15*	Call
235/75SR-15*	Call

P2000

165/65TR-13	$44
165/65TR-14	46
185/65TR-15	67
195/65TR-15	71

P4000

195/65VR-15	$145

P600

185/60HR-14	$66
185/65HR-14	88
195/60HR-14	73
195/60VR-14	111
195/65HR-14	80
205/55VR-14	107
205/60HR-14	107
205/60VR-14	116
185/55VR-15	107
185/65HR-15	104
195/50VR-15	116
195/55ZR-15	122
195/60HR-15	107
195/60VR-15	85
195/65HR-15	108
195/65VR-15	108
195/65ZR-15	114
205/55HR-15	128
205/55VR-15	112
205/60HR-15	94
205/60VR-15	123
205/65HR-15	109
205/65VR-15	116
215/60HR-15	109
215/60ZR-15	145
215/65ZR-15	140
225/60VR-15	119
225/60ZR-15	139
235/60VR-15	164
205/55VR-16	123
225/55ZR-16	112
225/60VR-16	118
235/60ZR-16	152

SCORPION

345/60VR-17

$1,250

P5

205/70VR-15	$114
215/70VR-15	118
225/65VR-15	154

P700Z High Performance

195/50ZR-15	$123
205/50ZR-15	145
215/50VR-15	155
225/50ZR-15	156
205/45ZR-16	157
205/50ZR-16	163
205/55ZR-16	158
225/45ZR-16	156
225/50ZR-16	166
225/55ZR-16	181
235/50ZR-16	240
245/45ZR-16	182
245/50ZR-16	186
205/40ZR-17	212
205/50ZR-17	205
215/40ZR-17	211
215/45ZR-17	220
215/50ZR-17	204
235/40ZR-17	237
235/45ZR-17	205
255/40ZR-17	237
255/45ZR-17	237
265/40ZR-17	245

P6

185/60HR-14	$49
195/60HR-14	55
195/65HR-14	64
195/65VR-14	101
185/65HR-15	63
195/60HR-15	60
195/65HR-15	68
195/65VR-15	105
205/60HR-15	63
205/60VR-15	91
205/65HR-15	69
205/65VR-15	112
215/60HR-15	68
215/60VR-15	120
215/65HR-15	73

P Zero Ultra High Performance

195/50ZR-15	$141
205/50ZR-15	161
225/50ZR-15	186
345/35ZR-15	289
205/55ZR-16	169
225/45ZR-16	194
225/50ZR-16	185
245/45ZR-16	204
205/50ZR-17	215
215/50ZR-17	229
225/45ZR-17	249
235/40ZR-17	243
235/45ZR-17	251
245/40ZR-17	260
245/45ZR-17	255
255/40ZR-17	258
255/45ZR-17	247
265/40ZR-17	261
275/40ZR-17	300
285/40ZR-17	306
315/35ZR-17	345
335/35ZR-17	382
225/40ZR-18	418
235/40ZR-18	472
245/40ZR-18	435
255/35ZR-18	466
255/45ZR-18	488
265/35ZR-18	480
275/35ZR-18	491
295/35ZR-18	505
315/30ZR-18	516
335/30ZR-18	520
255/40ZR-19	524
285/35ZR-19	495

P7/P7F/P7R

175/50VR-13F	$72
195/50VR-15	91
205/50VR-15	99
225/50VR-15	112
285/40ZR-15R	254
335/35ZR-15R	285
205/55ZR-16	123
225/45ZR-16	127
225/50VR-16	116
245/45ZR-16	113
255/50VR-16	135
215/45ZR-17	140
235/45ZR-17	146

BRIDGESTONE

RE940 High Performance All-Season

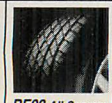
215/65VR-15	$104
225/60VR-15	119
205/55VR-16	143
225/50VR-16	156
225/60VR-16	127
245/50VR-16	168
255/50VR-16	175

HP41 Potenza All-Season

175/70HR-13	$49
185/70HR-13	54
205/60HR-13*	64
185/60HR-14	63
185/70HR-14	57
195/60HR-14	66
195/60HR-14*	69
195/70HR-14	60
195/70HR-14*	63
205/70HR-14	64
205/70HR-14*	68
215/60HR-14*	76
215/70HR-14*	70
225/60HR-14*	79
235/60HR-14*	82
185/65HR-15	66
195/60HR-15	68
195/65HR-15	70
205/60HR-15	71
215/60HR-15	76
215/65HR-15	77
215/65HR-15*	81
225/60HR-15*	84
225/70HR-15*	76
235/60HR-15*	84
235/70HR-15*	79
255/60HR-15*	90

Expedia Ultra High Performance

205/55VR-15	$169
225/50VR-16	200
225/50ZR-16	192
205/50ZR-17	225
225/45ZR-17	239
255/40ZR-17	265



RE92 All-Season

165/65 R-13	$43
175/60 R-14	61
175/65HR-14	66
175/70 R-13	49
185/70 R-13	54
175/70HR-14	50
185/60HR-14	64
185/60VR-14	84
185/70HR-14	58
195/60HR-14*	67
195/70 R-14*	61
195/60HR-15	68
205/55VR-15	118
205/60HR-15	72
205/60VR-15	100
205/65HR-15	74
225/60 R-15	83

RE71 Potenza

205/60VR-13	$107
185/60HR-14	71
195/55VR-14	104
195/60HR-14	75
195/60VR-14	112
205/60HR-14	79
205/60VR-14	118
225/60VR-14	126
195/50ZR-15	108
195/60HR-15	76
195/60VR-15	114
195/65ZR-15	124
205/50ZR-15	136
205/60HR-15	80
205/60VR-15	120
215/60HR-15	86
215/60VR-15	128
225/50ZR-15	153
225/60HR-15	93
225/60VR-15	135
235/60VR-15	137
245/50ZR-15	175
205/55VR-16	161
205/55VR-16	162
225/50VR-16	167
225/50ZR-16	169
245/45ZR-16	181
245/50ZR-16	183
255/50ZR-16	188
215/50ZR-17	171
235/45ZR-17	180
245/40ZR-17	186
255/40ZR-17	193
255/45ZR-17	188
275/40ZR-17	241
315/35ZR-17	290
335/35ZR-17	300

GOODYEAR

Eagle GS-A

235/45ZR-17	$235
335/35ZR-17	361
235/40ZR-18	250
295/35ZR-18	329

Eagle GS-C

205/50ZR-15	$158
225/50ZR-15	181
205/55ZR-16	169
225/50ZR-16	180
245/45ZR-16	198
245/50ZR-16	184
255/50ZR-16	199
245/45ZR-17	205
255/45ZR-17	239
275/40ZR-17	239
285/40ZR-17	268
315/35ZR-17	309
255/40ZR-19†	269

Eagle GS-D

205/45ZR-16	$169
225/50ZR-16	155
225/55VR-16	156

Eagle GS-N BMW O.E.

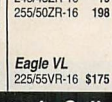
205/60HR-15	$108
225/55VR-15	107

Eagle VR/ZR (Gatorback)

195/60VR-15	$113
225/50VR-15	163
225/60VR-15	119
205/55VR-16	99
205/55ZR-16	130
225/50VR-16	141
225/50ZR-16	148
225/55ZR-16	159
225/55ZR-16	168
225/60VR-16	128
225/60ZR-16	130
245/45ZR-16	161
245/50VR-16	169
255/50VR-16	174
255/50ZR-16	183
245/40ZR-17	160
245/45ZR-17	183
275/40ZR-17	215
285/35ZR-17	199
315/35ZR-17	227

Eagle VR/ZR (German Made)

205/50ZR-16	$143
205/55ZR-16	161
205/55ZR-16[M1]	161
225/50ZR-16[M0]	178
225/50ZR-16[M1]	178
245/45ZR-16[M0]	19
255/50ZR-16	198



Eagle VL

225/55VR-16	$175

Eagle GT+4

185/60TR-14	$87
195/60HR-14	100
195/60TR-14*	95
195/70 R-14*	95
195/70 R-14	88
205/60TR-14*	101
205/70TR-14*	100
215/60UR-14	100
215/60UR-14*	104
215/70HR-14	115
225/60HR-14*	116
235/60TR-14*	110
185/60HR-15	92
185/65TR-15	72
195/60HR-15	109
195/70UR-15	95
205/60TR-15	99
205/60TR-15*	105
205/65HR-15	117
215/60 R-15	103
215/65HR-15	119
215/65UR-15	101
215/65UR*-15	107
215/65VR-15	124
215/70HR-15	115
225/50HR-15	139
225/60HR-15	109
225/70HR-15**	125
225/70HR-15	120
225/70TR-15*	108
235/70VR-15	132
235/70VR-15**	139
245/60TR-15*	118
255/60TR-15*	119
205/55HR-16	114
205/55VR-16	120
205/55UR-16	109
215/60HR-16	119
215/60UR-16	104
225/50VR-16	138
225/55HR-16	140
225/60TR-16	111
225/60ZR-16	129
245/50HR-16	149
255/50VR-16	159

Aquatred

175/70SR-13	$64
185/70SR-13	67
185/70SR-14	71
185/75SR-14‡	72
195/70SR-14	74
195/75SR-14‡	76
205/70SR-14‡	78
205/70SR-14	82
205/75SR-14‡	82
215/70SR-14	83
205/70SR-15	83
205/70SR-15‡	87
205/75SR-15‡	84
215/70SR-15	86
215/70SR-15‡	91

Eagle GA

185/70TR-13	$75
185/60HR-14	88
185/65SR-14	75
185/70TR-14	86
195/60HR-14	106
195/70SR-14	84
205/60TR-14	94
205/70HR-14	112
215/60TR-14	96
195/60HR-15	99
195/60VR-15	117
195/65HR-15	99
205/50HR-15	123
205/60HR-15	99
205/60SR-15	100
205/60SR-15*	104
205/60TR-15	89
205/65TR-15**	100
205/65VR-15[S3000]	116
205/70TR-15	98
215/50HR-15	133
215/60HR-15	99
215/60VR-15[S3000]	119
215/65SR-15	102
215/65SR-15**	106
215/65TR-15	95
215/70HR-15	116
215/70TR-15**	108
225/70SR-15**	109
225/70TR-15	105
225/70TR-15*	109
235/70SR-15**	113
205/55SR-16	99
215/60SR-16	98
215/60VR-16	117
225/60HR-16	102
225/60VR-16	107
225/60ZR-16	119
235/55SR-16	119

NCT

205/55VR-15	$105
235/60VR-15	137
235/60ZR-15	149

NCT2

185/65HR-15	$85
185/65HR-15[BMW]	87
195/65VR-15	99
225/60VR-16	99

Imported GA

195/60HR-14	$108
185/65TR-15	95
235/70VR-15	184
235/70VR-15*	192

Imported Vector

175/70TR-14	$71

Invicta GA

185/70TR-14	$68
195/70TR-14	68
195/70TR-14**	75
195/75TR-14	69
205/70TR-14**	78
205/60TR-15**	84
205/60TR-15	82
205/65VR-15*	97
205/70TR-15	78
215/60VR-15	97
225/75TR-15†	90
235/75 R-15	74
215/60TR-16	106
215/60VR-16	106
225/60VR-16	92

Invicta GL

175/65SR-14	$56
185/70 R-14*	63
195/70HR-14	51
195/75 R-14	60
205/70 R-14	62
205/65 R-15	70
205/70 R-15	66
205/75 R-15	65
205/75 R-15**	69
215/75 R-15*	69
225/75 R-15*	68
225/75 R-15**	72
235/75 R-15*	76
235/75 R-15**	74

XGT H4/V4/Z4 All-Season

185/60HR-14	$ 79
195/60HR-14	86
195/60VR-14	96
205/60HR-14	92
215/60HR-14	100
195/60HR-15	92
205/55VR-15	128
205/60HR-15	97
205/60VR-15	120
215/60HR-15	96
215/60VR-15	121
215/65HR-15	93
225/60VR-15	125
225/70HR-15	90
205/55VR-16	152
225/50VR-16	164
225/50ZR-16	176
225/55ZR-16	145
225/60HR-16	109
225/60VR-16	115
245/50VR-16	185

XGTV/Z

195/60VR-14	$88
205/50VR-15	118
205/60VR-15	121
215/60VR-15	122
215/65VR-15	126
225/60VR-15	124
205/55VR-16	156
225/50VR-16	158
245/45VR-16	189
245/50VR-16	175
255/50VR-16	178
245/45ZR-17	213
275/40ZR-17	242
335/35ZR-17	275

TRX

165/70HR-365	$88
185/65HR-365	96
185/65HR-390	102
190/65HR-390	115
200/60HR-365	119
200/60VR-390	142
220/55HR-390	118
220/55VR-390	148
240/55VR-390	166
240/45ZR-415	175
240/55VR-415	172
280/45VR-415	186

XGT4 All-

MasterCard
VISA

THE TIRE RACK®

Performance Tire and Wheel Specialists

Discover
American Express

South Bend / Reno

BFGoodrich

Comp T/A 3 Ultra High Performance

195/50ZR-15	$94
205/50ZR-15	114
205/55ZR-15	96
215/60ZR-15	101
225/50ZR-15	121
225/60ZR-15	104
245/50ZR-15	129
205/55ZR-16	124
225/50ZR-16	135
225/55ZR-16	129
245/45ZR-16	148
245/50ZR-16	139
255/50ZR-16	146
205/50ZR-17	148
215/45ZR-17	148
225/45ZR-17	161
235/45ZR-17	160
255/40ZR-17	170
275/40ZR-17	171
315/35ZR-17	204
235/40ZR-18	200
245/40ZR-18	194

Touring T/A

205/70SR-14	$55
195/65SR-15	42
205/65SR-15	55
205/70SR-15	43
215/65SR-15	62
215/60HR-16	79
225/60SR-16	70

Comp T/A HR4 & VR4

195/60VR-14	$80
185/65VR-15	87
195/60VR-15	85
195/65VR-15	86
205/60VR-15	86
205/65VR-15	90
215/60VR-15	92
215/65HR-15*	68
225/60VR-15	95
235/60HR-15	97
255/60HR-15	68
275/60HR-15*	96
205/55VR-16	118
215/60VR-16	101
225/50VR-16	125
225/55VR-16	123
225/60VR-16	105
245/45VR-16	139
245/50VR-16	120
255/50VR-16	124
275/60HR-17	138

Comp T/A HR4 -2

185/55HR-13	$63
185/60HR-14	63
195/60HR-14	66
215/60HR-14	68
195/60HR-15	70
205/60HR-15	71
205/65HR-15	68
215/60HR-15	72
225/60HR-15	73
225/70HR-15	67

FALKEN

FK05G

195/50HR-15	$74
195/50VR-15	85
205/50VR-15	96
225/50VR-15	109
205/50VR-16	99
205/55VR-16	115
225/50VR-16	116
225/50ZR-16	135
245/45ZR-16	135
245/50ZR-16	138
255/50ZR-16	133
215/45ZR-17	159
235/45ZR-17	180

FK06U

185/60HR-13	$50
205/60HR-13	54
185/60HR-14	50
195/60HR-14	54
205/60HR-14	58
225/60HR-14	61
195/60HR-15	54
205/60HR-15	58
215/60HR-15	64
225/60VR-15	75
225/60VR-16	80

FK07U

175/70HR-13	$38
185/70HR-13	48
185/70HR-14	48
195/70HR-14	49
205/70HR-14	53

FK07J

215/70VR-15	$74

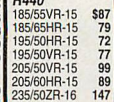
UNIROYAL

R340

195/65HR-14	$76
195/65VR-15	90
205/65HR-15	92
205/65VR-15	98
225/60VR-15	111
225/60ZR-15	149

R440

185/55VR-15	$87
185/65HR-15	79
195/50HR-15	72
195/50VR-15	77
205/50VR-15	99
205/60HR-15	89
235/50ZR-16	147
215/45ZR-17	129
235/40ZR-17	158
235/45ZR-17	152



RTT1 Ultra High Performance

205/45ZR-16	$139
215/40ZR-17	159
235/45ZR-17	168

Snow Tires Still Available!!!*

Bridgestone Blizzak

185/70QR-13	$60
185/65QR-15	69
195/65QR-15	78
205/60QR-15	80
225/60QR-15	92
225/60QR-16	100
235/60QR-16	104

Pirelli 190P

185/70TR-14	$82
195/60TR-14	89
195/65TR-14	78
195/65TR-15	88†

Pirelli 210P

185/55HR-15	$93
185/65HR-15	104
195/50HR-15	117
196/60HR-15	107
195/65HR-15	106
205/50HR-15	121
205/55HR-15	99
205/65HR-15	110
215/60HR-15	115
215/65HR-15	113
225/60HR-15	114
205/55HR-16	133
225/50HR-16	141

Pirelli W190

195/60TR-14	$79

Pirelli S2

175/70QR-14	$53
185/70QR-14	60
195/65QR-15	82

Dunlop QualifierM&S

195/65HR-15	$69
225/60HR-15	75
225/60TR-15	62

Uniroyal MS3

225/55HR-16	$78

Goodyear GT M&S

245/45VR-17	$186

Goodyear Ultra Grip

195/65HR-15	$76
205/65TR-15	72

Yokohama 380/480

205/50HR-15*	$131
225/50HR-16*	165
225/55HR-16	169

*Call for availability. Limited quantities.

ORIGINAL EQUIPMENT TIRES — YOKOHAMA

A022A

195/55VR-15	$130
205/55VR-15	126
225/50VR-15	152
225/50VR-16	172
225/55VR-16	165

A022H1

205/50ZR-15	$151
225/50ZR-16	187

A321

205/70VR-14	$85
185/70VR-15	78
205/70VR-15	81
215/70VR-15	85

A323

185/60HR-14	$70
195/60HR-14	85

A341

P195/60HR-15	$89
P195/65HR-15	84

A344

195/65HR-14	$80
195/65HR-15	84
195/65HR-15	84
P205/65HR-15	95
P205/65VR-15	101

A403

195/50VR-15	$89
205/50VR-15	102
245/45VR-16	144
245/50VR-16	126
255/50VR-16	132

A404

205/60HR-14	$90

A406

185/60HR-14	$77
195/60HR-14	80
205/60VR-14	93

S202

205/65VR-15	$64

Y221

P185/60HR-14	$61

Y350

P145/80R-13	$35
145 SR-13	35
155 SR-13	36

Y351

175/70SR-13	$44

Y360

P205/75R-14*	$51
P205/75R-14**	47
P225/75R-14**	51

Y361

165/70SR-12	$42

Y370

P235/75R-15XL*	$56
P235/75R-15	51

Y372

145 SR-12	$31
165/70SR-12	68
155/80 R-13	35
155 SR-13	35
175/70SR-13	43
185/70 R-13	45
185/65SR-14	61
185/70HR-14	61
185/70SR-14	48
185/75SR-14	48
205/70SR-14	54

Y372D

P155/80 R-13	$34

Y376

175/65HR-14	$70
185/60HR-14	75
195/60HR-14	80
195/65HR-14	80
195/65HR-15	84
205/60HR-15	104
205/65HR-15	92
205/65VR-15	103

Y379

P145/80SR-13	$34

Y382

155 SR-13	$38
155/80 R-13	37
165/80 R-13	39
175/70 R-13	44
175/70SR-13	44
185/70 R-13	47
185/70SR-14	50
185/70 R-14	50
195/70 R-14	53
195/75 R-14	50
195/75 R-14*	58
205/70 R-14	57
205/75 R-14	53
205/75 R-14*	60
195/60HR-15	80

Y383

P165/80R-13	$39

Y384

165 SR-13	$40
185/70SR-13	47
185/70SR-14	50

Y387

165SR-13	$40

Y388

P195/65R-15	$83
P215/65R-15	99

Y811

215/75R-15	$64
225/75R-15	75
225/75R-15*	84
235/75R-15	80
235/75R-15*	93

Y814

P235/75R-15	$80

Y816

P245/70SR-16	$89

Y828

P225/75R-15	$79

Y858

P195/75R-14	$53

Y869

P195/75R-14	$49

ORIGINAL EQUIPMENT TIRES — BRIDGESTONE

108V

P145/80 R-12	$37
155 SR-13	42
165 SR-13	48

116V

P185/70 R-13	$56

G03/G04

P195/60 R-14	$73
P195/65 R-15	90
205/60 R-15†	92
P205/60HR-15	69

Turanza ER30

205/55VR-15	$113
205/65HR-15	89
215/60VR-16	126

RE010

195/55VR-15	$156
205/50ZR-15	156
225/50VR-15	165
225/50ZR-16	194

RE85

175/65 R-14	$84
175/65HR-14	54
185/60HR-14	82

RE86 (137V)

185/60HR-14	$83
P195/60 R-14	69
205/60HR-14	91
195/60HR-15†	88
P205/60 R-15†	92
P215/60 R-15†	99

RE87

195/60HR-14	$84
205/60VR-14	134

RE88

185/60HR-14	$72
P185/60 R-14	83
P195/60HR-14	86
195/65HR-14	89
195/60VR-15	131
P195/60HR-15	88
205/60HR-15	90
205/60VR-15	135
P205/65 R-15	92
P205/65VR-15	129
205/65VR-15	104
215/60VR-15	146

RE91

225/50VR-16	$189

RE93

P205/50VR-15	$156
215/50VR-15	165
225/55VR-16	189

RE95

P225/50VR-16	$189

S133

P175/70R-13	$48

S134

P145/80SR-13	$42

S135

175/70SR-13	$50

S226

175/70SR-13	$50

S237

185/70HR-13	$55

S321

P215/65SR-15	$109

S324

P205/65HR-15	$94

S325

P185/60SR-14	$80

S381

155R-13	$42

401V

P145/80 R-12	$42
P165/70 R-12	47
P145/80 R-13	44
P155/80 R-13	45
P165/70 R-13	49
P175/70 R-13	52
185/70SR-13*	64

S402

155 SR-13	$33
P155/80 SR-13**	36
165 SR-13	38
185/65 SR-14	49
P185/70 SR-14	44
P185/75 SR-14	47
P185/75 SR-14**	51
195/70 SR-14	48
P195/75 SR-14	53
P195/75 SR-14**	52
P205/70 SR-14	50
P205/75 SR-14	53
P205/75 SR-14**	56
P205/75 SR-14*	62
P205/75 SR-14†	52
P215/75 SR-14†	56
P225/75 SR-15**	61
P235/75 SR-15‰	69

S405

145 SR-12	$38
P155/80SR-13	45
155 SR-13	43
165 SR-13	53
P165/65SR-13	49
P175/70SR-13	53
185/70SR-13	58
185/70SR-14	62
P185/65SR-14	73
P205/70SR-15	69
P205/70SR-15*	79

S406

175/70HR-13	$52
185/70HR-13	67
185/60HR-14	86
P185/70HR-14	71
195/60HR-14	92
195/65HR-14	94
P195/70HR-14	76
205/60HR-14	96
P205/70HR-14	69
225/70HR-14	101
225/70HR-14*	105
185/65HR-15	91
195/60HR-15	92
195/65HR-15	94
205/60HR-15	96
P205/65 R-15	98
P205/65VR-15	111
215/60HR-15	103
P215/65HR-15	88

S408/S409

155 SR-13	$35
P155/70 R-13	41
P175/70SR-13	49
P175/70 R-14	53
P185/70 R-14	56
195/65SR-14	62
P195/75 R-14	55
P205/75 R-14	59
215/75SR-15	53
235/75 R-15	60

ORIGINAL EQUIPMENT TIRES — DUNLOP OUTPERFORMS

D7

185/70HR-13	$54

D8

P185/60HR-14	$75
215/65HR-15	78

D8M2

175/70HR-14	$76
185/60HR-14	76
195/60HR-14	83
195/60VR-14	105
195/65ZR-15	109
205/60VR-15	123
235/60ZR-16	143

D31J

185/60HR-14	$62
195/65HR-14	75
195/60HR-15	68
195/65HR-15	77
P215/60HR-15	87
P215/65HR-15	81

D40M2

P225/50VR-16	$149

D62M

195/65HR-15	$70

D8050

205/50ZR-15	$150
225/50VR-16	219
225/50ZR-16	183

D87M

185/60HR-14	$71
205/60VR-14	82
205/55VR-15	109
215/50VR-15	95
P215/60HR-15	80
P215/65VR-15	91

D89

P185/60HR-14	$64

SP4

155 SR-12	$34
145 SR-13	30
155 SR-13	29
165 SR-13	34
175/70SR-13	34
175/70SR-13†	41
185/70SR-13	37
175 SR-14	39
185/70SR-14	39
195/70SR-14	40
165 SR-15	40

SP4N Star

P145/80 -13	$34
175/70SR-13	43

SPRS M&S

155 SR-13	$37
P155/80 R-13	38
P175/70 R-13	47
165 SR-13	40
185/70SR-13	48
185/70SR-14	50
P205/75 R-14	57

SP D40

205/50VR-15	$149
225/55ZR-16	187

SP20 A/S

155 SR-13	$37
P185/70SR-14	58
P195/65SR-14	48
P195/75 R-14	39
P205/75SR-14	60

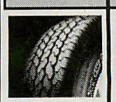
SP23J

P165/70R-13	$40
P175/70R-13**	43
175/70R-13LR	43

SP32J A/S

155 SR-13	$36
165 SR-13	39
175/70SR-13	43
P185/70 R-13	48
P175/70 R-14	47
P185/70 R-14	50
P195/75SR-14	54
P205/70 R-14	56
P205/75 R-14	57
P205/75 R-14†	50

LIGHT TRUCK TIRES — MICHELIN



XCH4

195/75R-14	$49
215/75R-15	78
225/75R-15	87
235/75R-15	83

XCH4 LT

30x9.50R-15C*	$106
31x10.5R-15C*	116
235/75 R-15C*	101
225/75 R-16C	115
225/75 R-16E	105
225/75 R-16E	122

XC AT

235/75 R-15C*	$107
30x9.50 R-15C*	113
31x10.5 R-15C*	119
215/75 R-15*	89
225/75 R-16E	130

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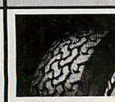
LIGHT TRUCK TIRES — BFGoodrich



Radial All-Terrain T/A

LT27x 8.5R-14	$79
LT30x 9.5R-15	93
LT31x10.5 R-15	101
LT32x11.5 R-15	108
LT33x 9.5R-15	106
LT33x12.5 R-15	116
LT35x12.5 R-15	123
LT215/75 R-15	86
LT235/75 R-15	95
LT225/75 R-16	104
LT245/75 R-16	120
LT265/75 R-16	127
LT285/75 R-16	139
LT235/85 R-16	108
LT31x10.5 R-16.5	106
LT33x12.5 R-16.5	120
LT35x12.5 R-16.5	136

Radial Mud T/A

LT30x9.5 R-15	$99
LT33x9.5 R-15	112
LT31x10.5 R-15	106
LT32x11.5 R-15	113
LT33x12.5 R-15	120
LT35x12.5 R-15	131
LT215/75 R-15	91
LT235/75 R-15	99
LT225/75 R-16	109
LT245/75 R-16	126
LT265/75 R-16	132
LT285/85 R-16	146
LT235/85 R-16	114
LT255/85 R-16	115
LT31x10.5 R-16.5	111
LT33x12.5 R-16.5	126
LT35x12.5 R-16.5	142

LIGHT TRUCK TIRES — GOODYEAR

Wrangler GSA

P215/70 R-14*	$77
P215/75 R-15*	83
P245/70 R-15†	87
P245/70 R-15†	87
31x10.50 R-15C*	111
33x12.50 R-15C*	130
LT245/75 R-16E*	119
LT265/75 R-16D*	124
LT245/75 R-16E	123

Wrangler Radial AT

LT195/75 R-14†	$83
31x10.5 R-15C*ISUZU	108
LT215/75 R-15C*	94
LT215/75 R-15C*	89
LT235/75 R-15C†	93
LT235/75 R-15D†	97
P235/75 R-15XL*	89
P235/75 R-15†	87
P235/75 R-15*	95
LT235/75 R-15C*	97
7.50 R-16D†	116
8.00 R-16.5D†	101
8.75 R-16.5D†	108
8.75 R-16.5E†	120
9.50 R-16.5E†	118
9.50 R-16.5D†	133
LT215/85 R-16D*DODGE	112
LT225/75 R-16D†	112
LT215/85 R-16D†	109
LT215/85 R-16E†	114
LT225/75 R-16C*	108
LT225/75 R-16C†	106
LT235/85 R-16D†	112
LT235/85 R-16E†	114
LT245/75 R-16C†	107
LT245/75 R-16C*DODGE	110
LT245/75 R-16E*	117
LT245/75 R-16E*DODGE	119
LT255/85 R-16D*	134
LT265/75 R-16C*DODGE	112

Wrangler Radial

P205/75 R-14*	$71
P205/75 R-15*	79
P215/75 R-15*	77
P215/75 R-15†	78
P225/75 R-15*	76
P225/75 R-15†	80
P205/75 R-15†	78
P235/75SR-15*	75
P235/75 R-15*	89
P235/15 R-15†XL	75

Wrangler Radial MT

30x9.5 R-15C*	$104
31x10.5 R-15C*	104
31x11.5 R-15C*	115
33x12.5 R-15C	127
33x12.5 R-15C*	117
LT235/75R-15C*	97
LT215/85R-16C*	105
LT225/75R-16C*	107
LT245/75R-16E*	114
LT235/85R-16E	113
33x12.5R-16.5D	126
37x12.5R-16.5D	304

Wrangler HT

P205/70R-14*	$72
P205/70R-14**	60
P205/75R-15*	76
P215/75R-15*	80
P215/75R-15†	79
P225/75R-15*	80
P225/75R-15**	80
P225/75R-15†	80
P235/75R-15*	86
P235/75R-15†	69
P235/75R-15**	87

LIGHT TRUCK TIRES — YOKOHAMA

SD05 Super Digger V-2

LT195/75R-14*	$73
LT30x9. 5R-15*	82
LT31x10.5R-15†	92
LT31x10.5R-15*	91
LT31x11.5R-15*	95
LT33x12.5R-15*	102
LT215/75 R-15*	74
LT215/75 R-15(8)*	79
LT235/75 R-15*	76
LT215/85 R-16*	81
LT225/75 R-16*	87
LT225/75 R-16(8)*	94

Y826 Super Digger

LT27x8. 5 R-14(6)*	$72
LT30x9. 5 R-15*	86
LT31x10.5R-15*	95
LT31x11.5R-15*	103
LT33x12.5R-15*	111
33x12.5 R-16.5(6)*	116
33x12.5 R-16.5(8)*	122

Y811 Super Digger IV

LT215/75R-15*	$77
LT235/75R-15*	85
LT215/85R-16(8)†	90
LT215/85R-16(10)	94
LT235/85R-16(8)†	96
LT235/85R-16(10)	101
750 R-16†	97

Y812 Mud Digger

LT30x9. 5R-15*	$93
LT31x10.5R-15*	113
LT31x11.5R-15*	111
LT33x12.5R-15*	120
LT35x12.5R-15	130

Y788R

800 R-16.5(8)	$87
875 R-16.5(8)	91
950 R-16.5(8)	103
LT215/85R-16(8)	88
LT215/85R-16(10)	93
LT235/85R-16(8)*	94
LT235/85R-16(10)	99

Y356

185 R-14(6)	$44
185 R-14(8)	57
LT195/75R-14(8)	54

LIGHT TRUCK TIRES — BRIDGESTONE

Dueler H/T 682

P195/75 SR-14*	$61
P205/75 SR-14*	65
P195/75 SR-15*	66
P205/75 SR-15*	68
P215/75 SR-15*	71
P225/75 SR-15*	74
P235/75 SR-15*	77
LT30x9.5SR-15(4)*	84
LT31x10.5 SR-15(4)*	94
LT31x11.5 SR-15(6)*	101
LT33x12.5 SR-15(6)*	107
LT215/75SR-15(6)*	77
LT235/75SR-15(6)*	83
LT225/75SR-15(6)*	97
LT265/75SR-16(6)*	106
LT215/85SR-16(8)	102
LT235/85SR-16(8)	110

Dueler A/T 691

27x8.5 R-14(6)*	$77
30x9.5 R-15(6)*	93
31x10.5 R-15(6)*	102
32x11.5 R-15(6)*	109
33x12.5 R-15(6)*	118
LT215/75R-15(6)*	83
LT235/75R-15(6)*	90
LT265/75R-16(6)*	115
31x10.5 R-16(5)*	107
33x12.5 R-16(5)*	124

Dueler M/T 672

30x 9.5 R-15(6)*	$99
31x10.5 R-15(6)*	110
32x11.5 R-15(6)*	118
33x12.5 R-15(6)*	126
LT215/75R-15(6)*	90
LT235/75R-15(6)*	98
LT225/75R-16(6)*	105
LT235/85R-16(10)†	125
LT245/75R-16(10)†	125
LT265/75R-16(6)*	124
LT285/75R-16(6)*	128

604V

31x10.5 R-15(6)	$105
31x10.5 R-15(6)*	116

D682

P205/75 R-15	$74
P235/75 R-15†	85

LIGHT TRUCK TIRES — DUNLOP OUTPERFORMS

SPQ T.G. 20

P215/75-15	$76
P225/75-15	70
235/75-15	78

Gran Tek T.G. 25N

31X10.5-15	$105

Gran Tek T.G

31x10.5-15†	$105

Radial Mud Rover

LT235/75R-15C	$101
LT255/85R-16D	124
30x9.5 R-15C	98
31x10.50 R-15C	109
33x12.50 R-15C	125
33x12.50 R-16.5D	141

Radial Rover AP

LT235/75R-15D	$90
8 R-16.5D	91

Radial Rover HLT

LT7.5 R-16D	$97
LT225/75R-16D	93
LT215/85R-16D	91
235/85 R-16E	91
9.50 16.5D	104
8.75 16.5D	92

Radial Rover AT

7.50 R-16D	$95
LT215/85R16D	86
LT225/75R16D	88
LT235/85R-16E	91
LT245/75R 16E	103
8.75 R16.50	91
9.50 R16.5D	103

Radial Rover P-Metric

P205/75-15	$66
P215/75-15	67
P225/75-15	69
P235/75-15XL	79
P235/75-15	71

Radial Rover R/T

7.50 R-16.0D	$105
LT215/85R-16D	99
LT235/85R-16E	110
8.75 R-16.5D	105
9.50 R-16.5D	115
33x12.5 R-16.5D	148

SPECIALS

175/70 R-13	Michelin XGT4 $55
175/70 R-13	Michelin LX1 52
185/70TR-13	Michelin MXL 52
175/65HR-14	Bridgestone RE85 54
185/60HR-14	Pirelli P600 66
195/60HR-14	Pirelli P600 73
195/70HR-14	Goodyear Invicta GL 51
205/70HR-14	BFG Comp TA4 58
P205/70 R-14**	Goodyear Wrangler HT 60
185/65TR-15	Goodyear GT+4 72
195/50HR-15	General XP2000 64
195/50VR-15	Fulda Y2000 75
195/60HR-15	Goodyear Eagle GA 89
195/60VR-15	Pirelli P600 85
205/50TR-15	General XP2000 61
205/60HR-15	Goodyear GS-N 108
205/60HR-15	Bridgestone G03P 69
205/60TR-15	Goodyear Eagle GA 89
205/60VR-15	Pirelli P6 91
205/60VR-15	Michelin MXV3-A 106
205/60VR-15	Michelin MXV4 103
P205/65VR-15	Bridgestone RE88 104
215/70 R-15	Michelin LX1 63
225/55VR-15	Goodyear GS-N 107
225/60VR-15	Pirelli P600 119
225/70TR-15*	Goodyear Eagle GA 105
P225/75 R-15*	Bridgestone 610V 54
P225/75 R-15	Dunlop SPQT G20 59
P225/75 R-15†	Dunlop SPQT G 70
235/75 R-15*	Firestone ATX(RWL) 68
P235/75 R-15XL	Dunlop Gran Tek TG27 62
205/40HR-16	BFG Euro T/A 90
205/55SR-16	Goodyear Eagle GA 99
205/55VR-16	Goodyear Eagle VR 99
215/55VR-16	Michelin XGTV4 135
215/60VR-16	Goodyear Eagle GA 117
225/45ZR-16	Pirelli P700Z 156
225/50VR-16	Pirelli P7 116
225/50VR-16	Michelin XGTV 158
225/50VR-16	Goodyear Eagle VR 141
225/50ZR-16	Goodyear Eagle GS-D 155
225/50ZR-16	Goodyear Eagle ZR 148
225/50ZR-16	Dunlop SP4000 139
225/55ZR-16	Michelin XGTZ4 145
225/55ZR-16	Pirelli P600 112
225/60VR-16	Goodyear NCT2 99
225/60VR-16	Goodyear Invicta GA 92
225/60VR-16	Pirelli P600 118
225/60VR-16	Goodyear Eagle GA (Lexus) 119
245/45ZR-16	Goodyear Eagle ZR 161
215/45ZR-17	Dunlop D40M2 147
245/40ZR-17	Goodyear Eagle ZR 160
285/35ZR-17	Goodyear Eagle ZR 199
315/35ZR-17	Michelin XGT+ 149

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ROAD TEST UPDATE

THE LAST SURVIVING LINK TO COLIN CHAPMAN

by Don Fuller

PHOTOGRAPHY BY RICK GRAVES

Lotus Esprit Turbo S4

The best thing about driving a Lotus is that you get to drive a Lotus. The worst thing about driving a Lotus is that you have to drive a Lotus. That's most of what you need to know.

This is the Esprit Turbo S4, the newest version of the Esprit. Lotus faithful will be glad to know it retains its exotic idiosyncrasies. Nevertheless, it boasts extensive refinements.

New body panels nicely round off the exterior. The old, vision-obstructing rear spoiler is replaced by a high-mounted wing that allows clear rearward lines-of-sight. New 17-inch wheels replace the former 15-inch fronts and 16-inch rears, and lower-profile Goodyear GS-A tires give more grip. A new power-steering system improves feel and ease. Revised front and rear suspensions have reduced the understeer.

Engine output remains an astounding 264 horsepower from the 2.2-liter DOHC turbocharged, intercooled, inline-four. New block, head, and sump castings add stiffness, the gearbox shifts better, and the engine exhibits improved re-

A

First, the Mazda Miata burned up the track to become the SCCA Showroom Stock C Champion.

roadster

Now it's ready to burn up the road. Presenting the new Miata R Package. A lightweight racer with

so racy we

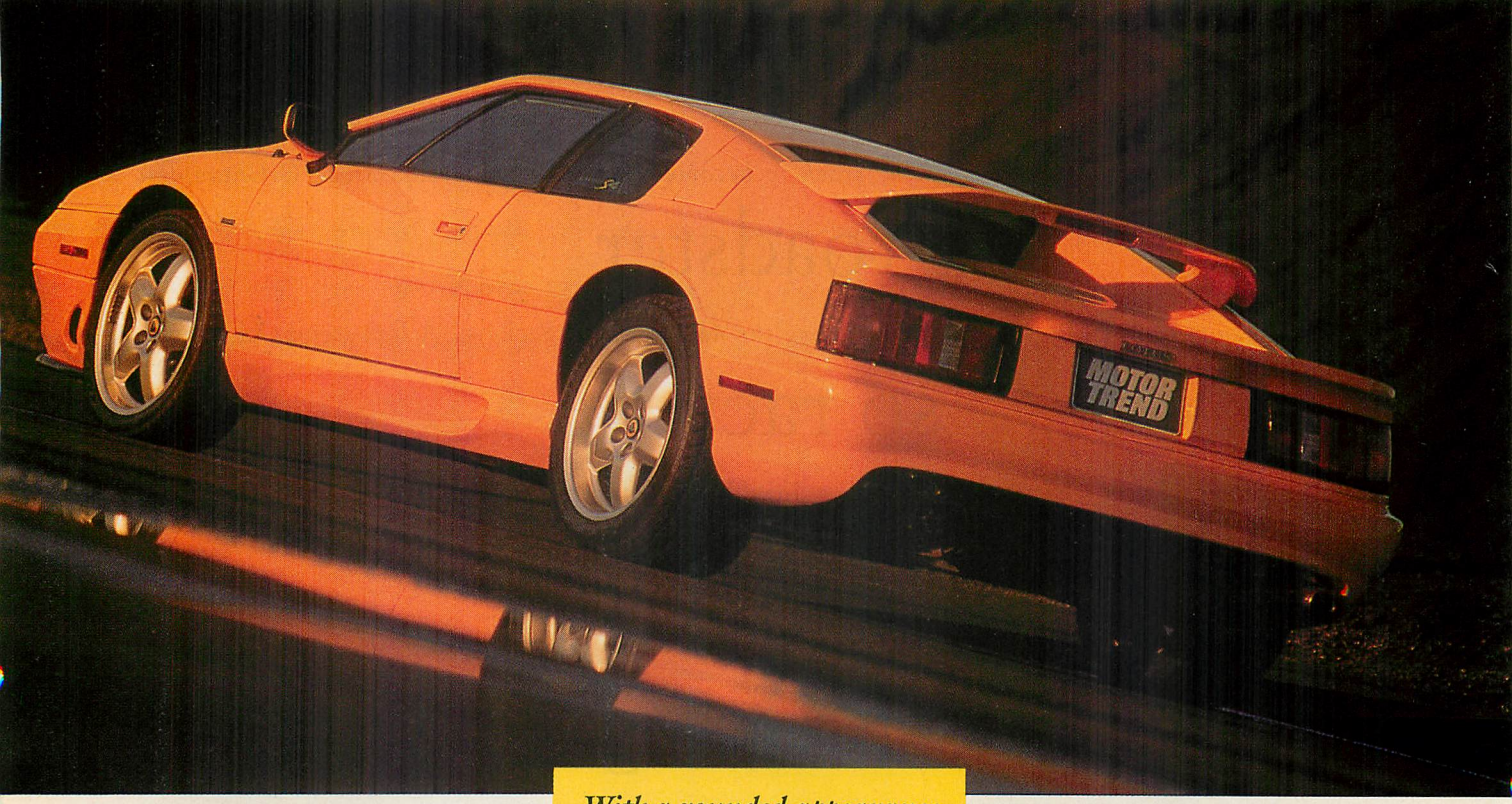
128 horsepower, new sport suspension and a Torsen® limited-slip differential. Plus, special features

gave it an

like a front air dam and rear spoiler. The 1994 Miata R Package. The only car that's racier is rated RX.

R rating.

The Mazda MX-5 Miata has been an *Automobile Magazine* "All Star" for 5 consecutive years and is backed by a best-in-class, 36-month/50,000-mile, no-deductible, "bumper-to-bumper" limited basic warranty. See your Mazda Dealer for details. For a free brochure, call 1-800-639-1000. © 1994 Mazda Motor of America, Inc.



sponse and driveability. It continues to boast the highest output of any production four-cylinder.

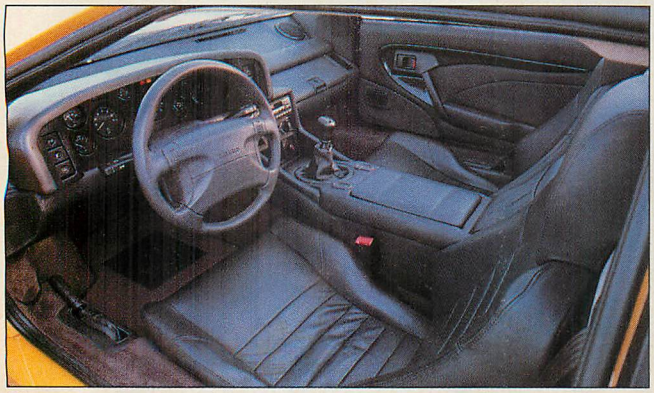
Inside, the seats offer more support and comfort, a few detail items are relocated, and there are dual airbags. The burled wood instrument panel and some door trim pieces have been replaced with a molded carbon-fiber-look material, which probably makes no functional difference, but looks technoid as all get out.

Some conceptual aspects of the Lotus are stunning. The clever brilliance of Colin Chapman still shines through, and this is the last Chapman-era Lotus still in production. But Lotus is a little car company; wonderful concepts are sometimes matched with mediocre execution. Lotus remains a certifiable leader in composite components, and the S4's fiberglass bodywork is world-class flawless. However, such things as off-the-shelf instruments and switches, and an obviously hand-assembled look in the details, betray some of the shortcomings of low-volume production.

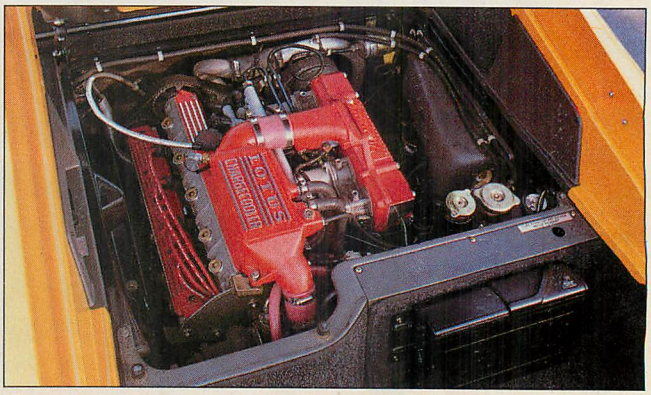
With a rounded appearance replacing the former angular corners, the Esprit now looks softer and less dated. The new wing is welcome, as it offers vastly improved rearward vision. The five-spoke wheels were designed by Lotus.

But the Esprit Turbo S4 delivers high-volume performance, and our recorded testing proves that it's a bloody fast car. When the little motor spins up to the party-time area of the boost curve, you get a kick in the back, the tach needle zings for redline, and things in the windshield get closer real quick. We racked up 0-60 mph in 4.8 seconds and covered the quarter mile in 13.3 seconds at 107.3 mph. A max-effort stop from 60 mph takes 125 feet, and the Esprit generated 0.90 g of lateral acceleration on our skidpad. The light, nimble Lotus doesn't always need a firm hand, but it does demand a sure one, as things can happen quickly.

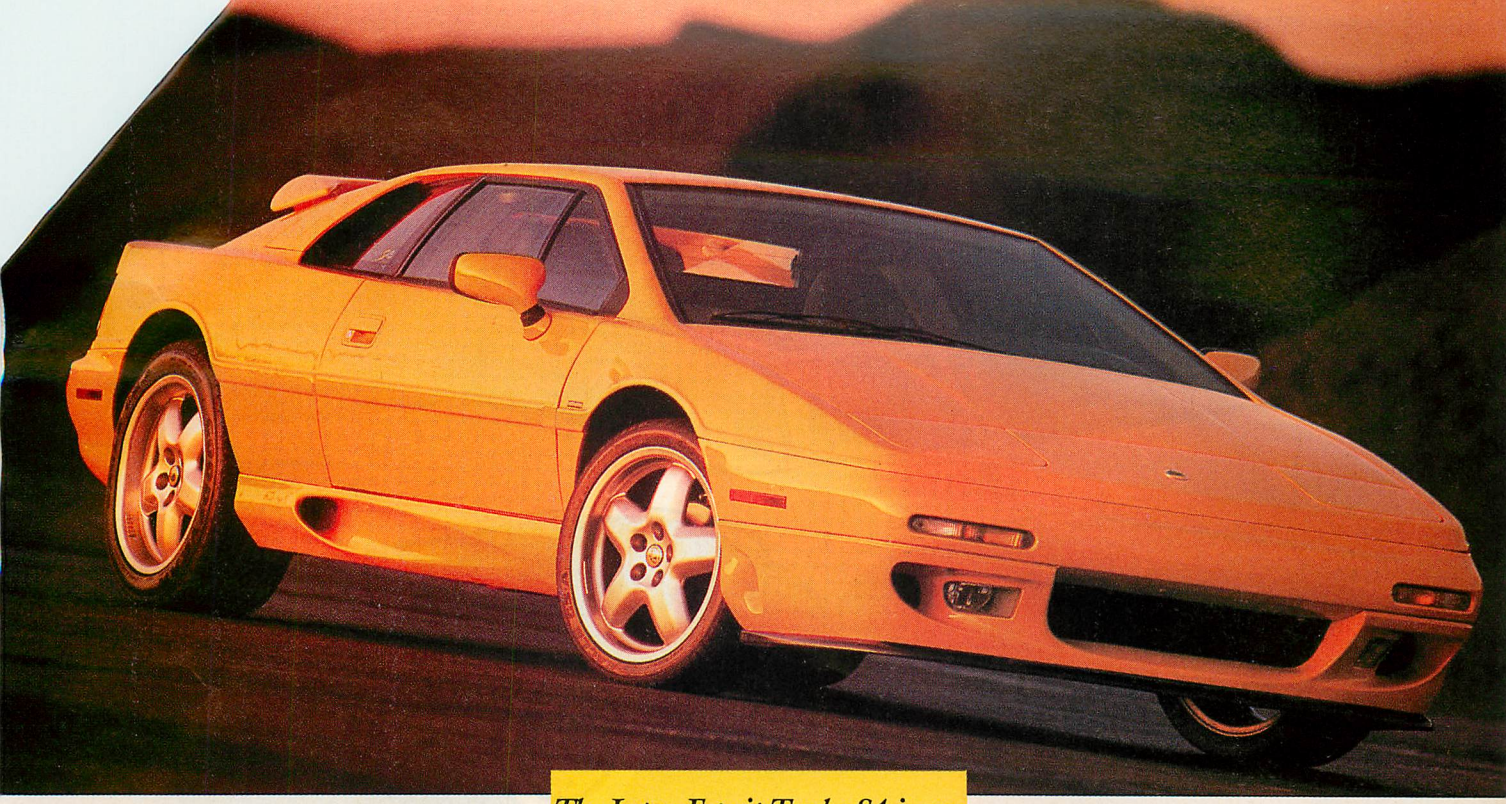
Other cars will go about this fast or faster, some for a bunch less money (Toyota Supra Turbo, Mazda RX-7, for starters). If you want a mid-engine and advanced technology, the Acura NSX, for about the same price, has



New seats give improved comfort and support, and the carbon-fiber-look trim pieces lend a high-tech ambiance. Though still not up to the standards of volume-produced cars, the Esprit's interior is much better than before.



The little Lotus engine is a mighty-mite. Only 2.2 liters big with 264 turbocharged horsepower, its specific output is over 120 horsepower/liter. Boost builds feverishly, but catch it at low rpms and there's not much grunt.



more technical sophistication and is a better "car" in every way. But the Lotus isn't about those hard numbers. It's about exotic-car exclusivity.

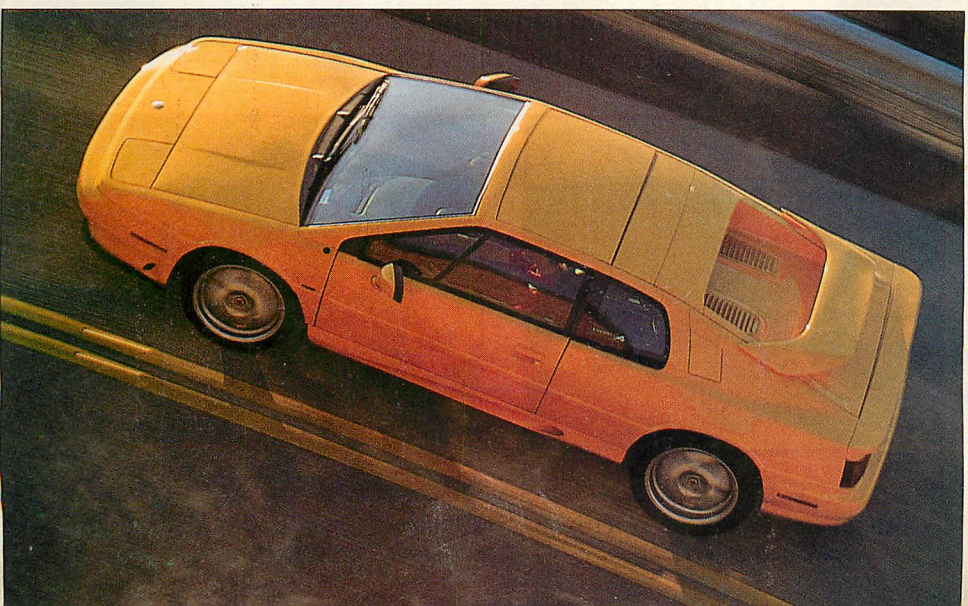
If you think living with an exotic car would be an endless automotive heaven, prepare to have your bubble popped. The Esprit's ergonomics would be inexcusable in the lowliest Chevy. Placement of controls wouldn't pass the rough-draft stage at Hyundai. The operating characteristics would be a subject of condescending humor among Toyota truck engineers. To see how real car companies build high-performance, mid-engine sports cars, you need only look at the NSX. If the Esprit Turbo S4 was the only way to get to work every day, most drivers would quickly tire of it.

But it's not for driving every day. It's for sunny Saturdays on deserted mountain roads. It's for being noticed in front of trendy restaurants and glitzy hotels.

The Lotus Esprit Turbo S4 is one of the last of the true exotics. Living with it can be a love/hate relationship. It isn't perfect, but the driving highs it offers can be exhilarating.

On those rare, brief times when you can use it as Chapman intended, the S4 gives a glimpse into the high-limit potential of the true exotic car. It's a world of slam-bang go-fast, hang-on cornering, right-now braking, and four-wheeled razz-ma-tazz.

It's then, when the valet pulls the Esprit Turbo S4 up in front of the restaurant after an overpriced dinner, hops around to hold the door just right so the crowd can watch as your date slithers in, and you take just a little extra time sliding behind the wheel, that you realize the best thing about driving a Lotus is that you get to drive a Lotus. MT



TECH DATA

Lotus Esprit Turbo S4

GENERAL/POWERTRAIN

Body style	2-door, 2-passenger
Vehicle configuration	Mid-engine, rear drive
Airbag	Dual
Engine configuration	Inline-4, DOHC, 4 valves/cylinder, turbocharged, intercooled
Engine displacement, ci/cc	133/2174
Horsepower, hp @ rpm, SAE net	264 @ 6500
Torque, lb-ft @ rpm, SAE net	261 @ 3900
Transmission	5-speed manual
Axle ratio	3.89:1

DIMENSIONS

Wheelbase, in./mm	96.0/2438
Length, in./mm	172.0/4369
Base curb weight, lb	2952
Fuel capacity, gal	19.3
Fuel economy, EPA city/hwy., mpg	17/27

CHASSIS

Suspension, f/r	Independent/independent
Steering	Rack and pinion, power assist
Brakes, f/r	Vented discs/discs
Wheels, f/r	17 x 7.0/17 x 8.5, cast aluminum
Tires, f/r	215/40ZR17/245/45ZR17 Goodyear Eagle GS-A

PERFORMANCE

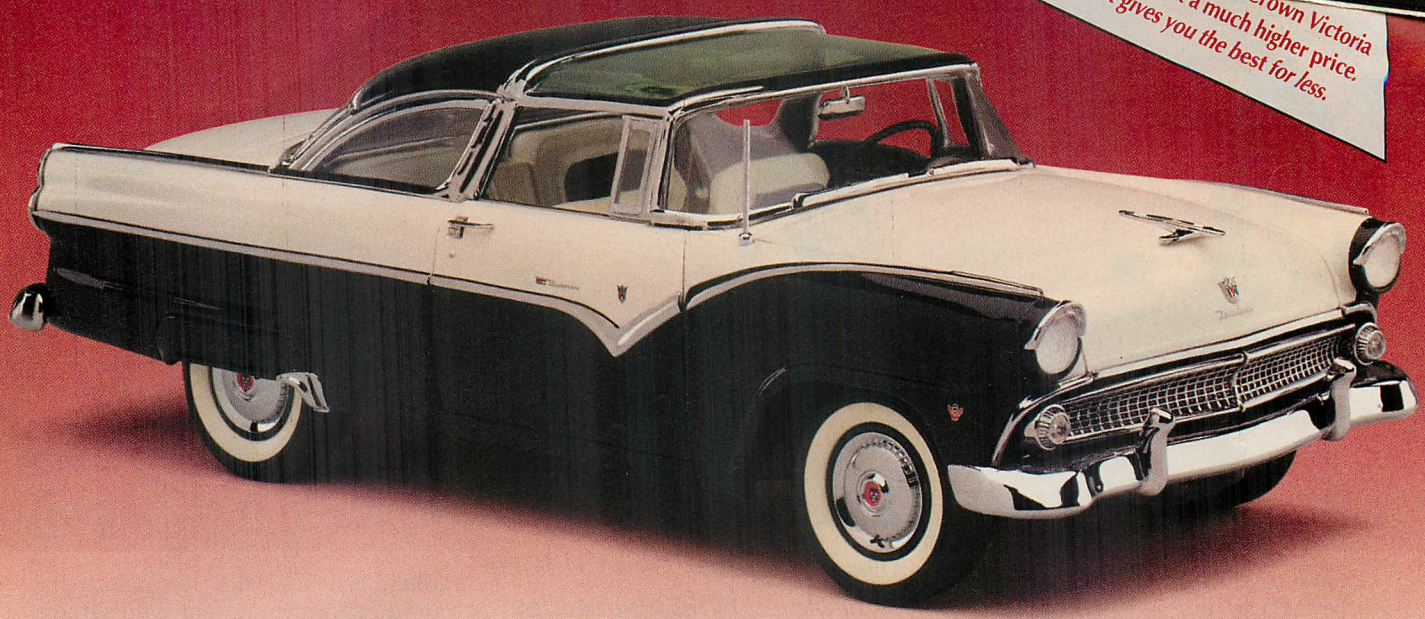
Acceleration, 0-60, sec	4.8
Quarter mile, sec/mph	13.3 @ 107.3
Braking, 60-0, ft	125
Slalom, 600-ft, mph	68.1
Skidpad, 200-ft, lateral g	0.90

PRICE

Base price	$69,000
Price as tested	$69,995

The 1955 Ford Crown Victoria

Why pay
A directly comparable 195 Crown Victoria is being offered by others at a much higher price. The Danbury Mint gives you the best for less.



Replica shown smaller than actual size of 8¼" in length.

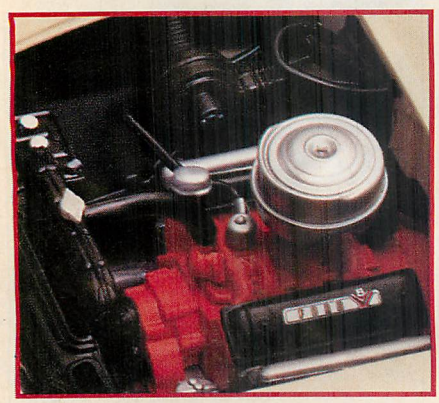
Photos depict the incredibly detailed replica—not the actual car.

A Meticulously Engineered Die-Cast Metal Replica of One of America's Greatest Cars.

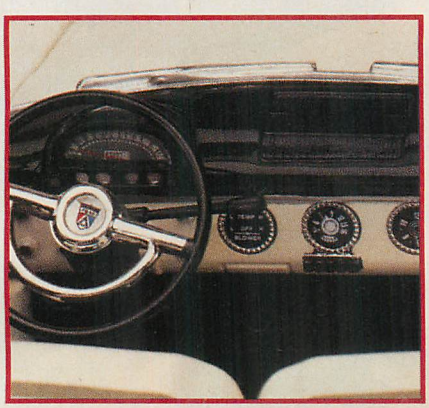
The Ford Crown Victoria burst upon the automotive scene in 1955 with all the glamour and elegance of a great movie star. Customers loved the Crown Victoria's stylish front end which boasted chrome "brows" over the headlights, a sporty "egg crate" grille and a glistening, wrap-around chrome bumper. Even more sensational was the broad band of chrome that rakishly wrapped itself around the roof—supporting a unique optional Plexiglas top.

This beautiful car had the power to match its good looks. Under the hood was a 292 cubic inch V-8 engine that produced 198 hp. Inside, the upholstery and fittings coordinated perfectly with the two-tone exterior colors.

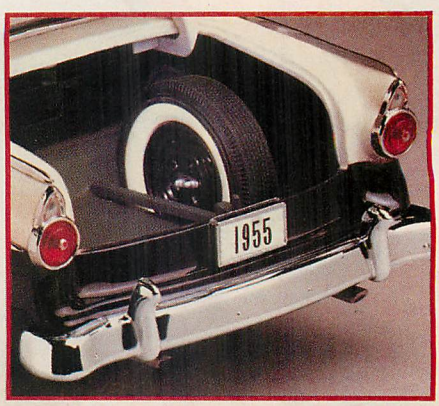
The 1955 Ford Crown Victoria is among the most coveted of all Ford cars from the 1950's. Now, you can acquire a remarkably detailed replica of this Fifties classic.



Under the hood is a detailed replica of the 292 cubic inch V-8 engine.



All the tiny gauges are expertly replicated and readable.



Inside the trunk is a genuine rubber spare tire and a miniature jack.

A Legend You Can Hold in Your Hands!

Meticulously crafted; hand-assembled!

Over 150 scale parts go into making this authentic replica in the large 1:24 scale. All the important components—the body, chassis, drivetrain and engine block—are crafted in metal and polished by hand before painting. Every single component is inspected before this replica is assembled by hand.

Attractively priced.

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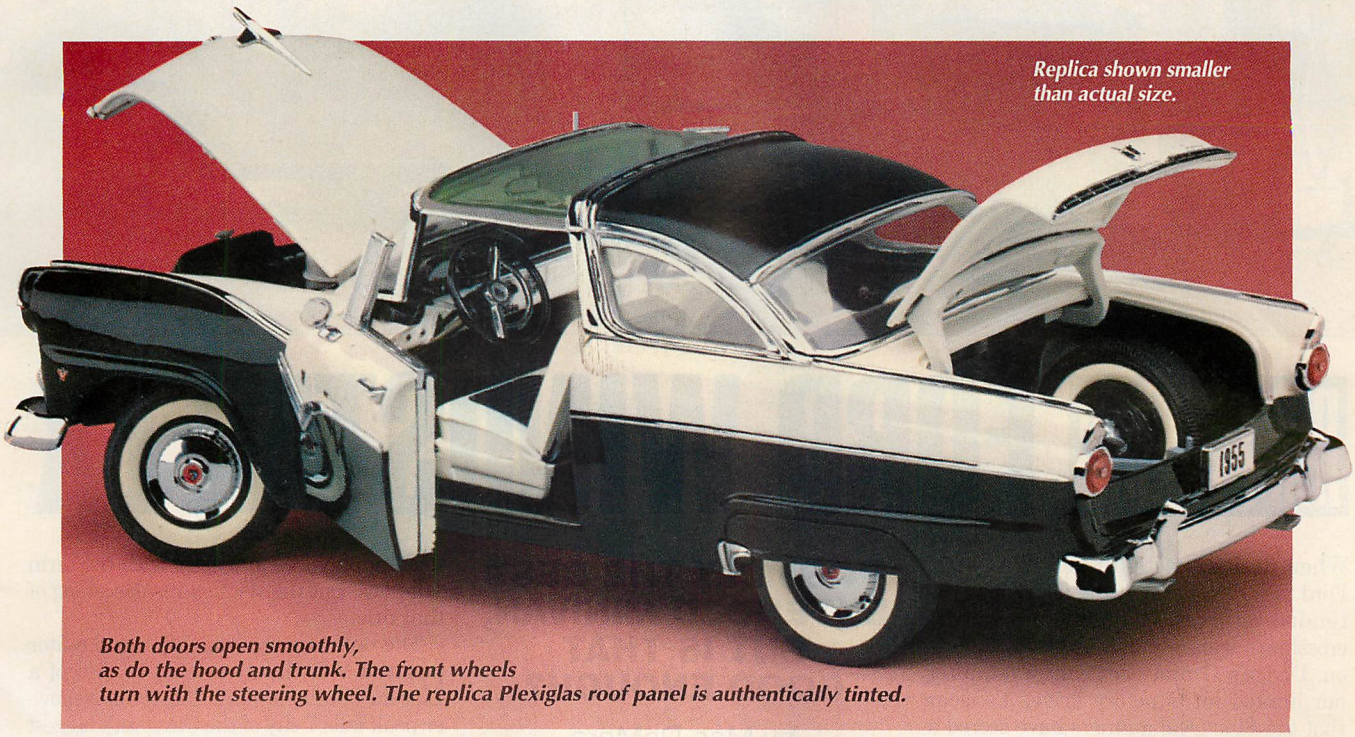

Replica shown smaller than actual size.

Both doors open smoothly, as do the hood and trunk. The front wheels turn with the steering wheel. The replica Plexiglas roof panel is authentically tinted.

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Name to print on certificate of ownership (if different from above).

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156IMM1

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DRIVING IMPRESSION FORD WINDSTAR LX

POSSIBLY THE BEST EXTENDED MINIVAN, BUT IS THAT GOOD ENOUGH?

by Mac DeMere

When designing its all-new Windstar, Ford took direct aim at the flourishing extended minivan segment, placing its crosshairs squarely on the class champion, Dodge's Grand Caravan. Even after our limited introductory drive, it's clear that the Blue Oval gunners have scored a bull's-eye.

The Windstar is bigger than the Grand Caravan in virtually every dimension, inside and out, head room to fuel tank. Yet, despite its size, the Windstar weighs little more when comparably equipped and is more carlike in ride and handling. Its interior appointments, creature comforts, and quietness exceed those of the Grand Caravan, even challenging or surpassing the hot-selling Mercury Villager/Nissan Quest's, which set some of those benchmarks. The Windstar's standard 3.8-liter V-6 matches the Dodge's biggest optional engine.

With standard anti-lock brakes, dual airbags, full 5-mph bumpers, a beefy integral ladder frame, and much of its extra 8.5 inches of length used for open crush space in its nose, the Windstar almost had us hoping our ride-and-drive would culminate with a barrier crash. Even without first-hand experience, however, it's easy to believe Ford officials when they say the Windstar meets all car and truck safety standards, including the '97 side-impact requirements, and produced "unusually robust performance" in the 30-mph crash test.

Designed and built by Ford's truck division, but using lessons learned from Ford passenger cars, the Windstar, which will debut as a '95 model, combines trucklike strength with carlike comfort and function. Though the front-drive Windstar looks like a cross between the full-size Ford Chateau Club Wagon and the Villager, it shares no components with either these or the rear-drive, truck-based Aerostar, which will be phased out at the end of the '94 model year.

Although Taurus blueprints served as the "foundation" and components such as front suspension are closely related to the Ford family sedan, the Windstar's chassis is a clean-sheet design. Everything borrowed from the corporate parts bin was modified for this application. Many auto makers play free and loose with the term "all-new," but the Windstar is deserving of that title.

The only engine available is a 3.8-liter pushrod V-6, closely related to that of a Lincoln Continental. At 155, its horsepower peak falls 7 shy of the Caravan's biggest optional V-6, but the Windstar's torque peak is 7 pound-feet higher. Still, with its 3700-pound curb weight, "fastest minivan" won't be one of the superlatives this vehicle enjoys. Like the rest of the Windstar, the engine is constructed in Canada.

To ensure the Windstar has enough cooling capacity for towing up to 3100 pounds with its optional towing package, its standard radiator is as big as a V-8 Econoline's and has two electric cooling fans. The transversely mounted engine is mated to an electronically controlled four-speed automatic transaxle, the likes of which will soon make the phrase "seamless upshifts" redundant.

If you've ever changed a Taurus' tire, you'll see the family resemblance of the Windstar's front suspension: MacPherson struts with lower control arms and power-assisted rack-and-pinion steering. However, the Windstar's rear suspension departs with a solid twist beam axle with integral trailing links, located laterally by a Panhard bar. From the driver's seat,

you'll get excellent steering feel and response, and a tighter turning radius than the Caravan's. The Windstar feels extremely solid, thanks in part to structural foam in the B-pillars, cowl area, and rocker panels, which contributes to chassis rigidity and noise reduction.

Unlike most anti-lock braking systems, the Windstar's standard four-channel ABS deals with the rear wheels separately. Other safety features include an inertia switch on the fuel pump that stops fuel flow after a crash, standard adjustable upper seatbelt mounts, and optional integral child seats.

The Windstar's dash is reminiscent of the Mark VIII—and not by accident. Analog gauges come in the base GL, while the upscale LX features an attractive, legible instrument panel that combines digital speed display with an electronic representation of an analog speedo and tachometer. There's excellent visibility to all corners from the Windstar's high-mounted, comfortable, and supportive driver's seat. Other interior features include lighted door switches, soft-feel interior paint, and a storage drawer under the front passenger seat. With both rows of rear seats removed, the Windstar has a huge 144-cubic-foot cargo capacity. The rear hatch, held open by double gas struts, has its latches on the side pillars, permitting a smooth floor for easy loading. Though bigger than the Grand Caravan, the Windstar falls behind the Chevrolet Astro and Toyota Previa in some, but not all, dimensions.

As good as it is, the multi-million-dollar question for Ford is how the Windstar will stack up against the next-generation Chrysler minivan, which is expected to debut before the end of '95. **MT**

TECH DATA

Ford Windstar

GENERAL/POWERTRAIN

Body style	3-door, 7-passenger minivan
Vehicle configuration	Front engine, front drive
Engine configuration	90° V-6, OHV, 2 valves/cylinder
Engine displacement, ci/cc	232/3797
Horsepower, hp @ rpm, SAE net	155 @ 4000
Torque, lb-ft @ rpm, SAE net	220 @ 3000
Transmission	Electronically controlled, 4-speed automatic
Axle ratio	3.37:1

DIMENSIONS

Wheelbase, in./mm	120.0/3066
Length, in./mm	201.2/5111
Base curb weight, lb	3710
Fuel capacity, gal	20 (25 optional)
Fuel economy, EPA city/hwy., mpg	17/24

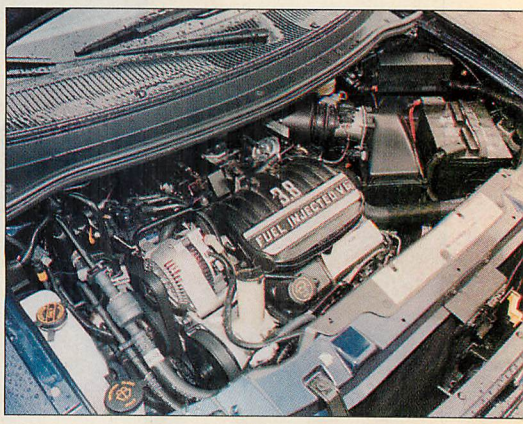
CHASSIS

Suspension, f/r	MacPherson struts/twist-beam axle
Steering	Rack and pinion, power assist
Brakes, f/r	Disc/drum, ABS standard
Wheels	15 x 5.5 inch, stamped steel
Tires	P215/70SR15 Goodyear Invicta GS or Michelin XW4

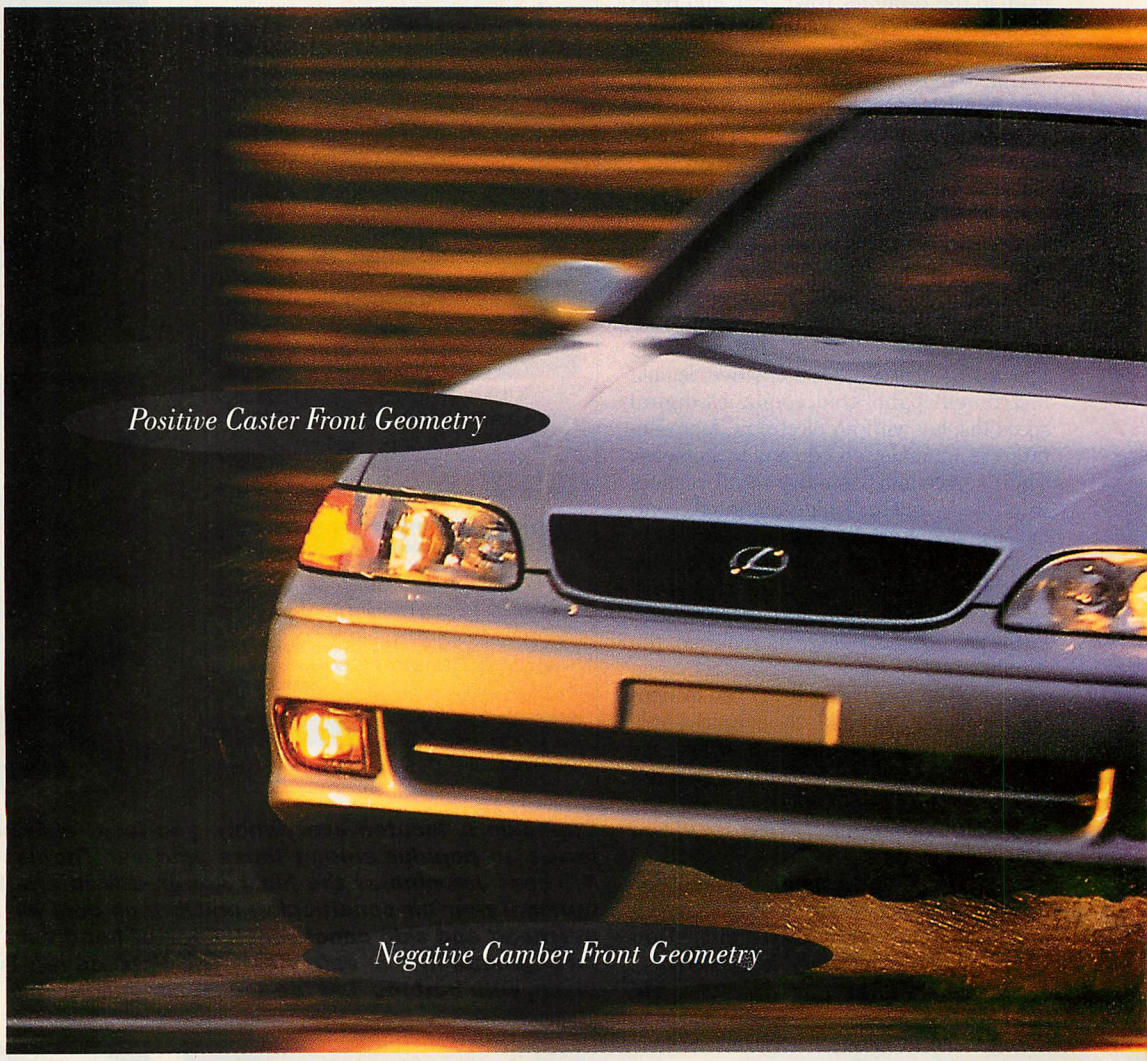
PRICE

Base price	$19,750 (est.)

Cupholders, located everywhere you look, also accommodate the juice boxes so popular among those who list Thomas the Tank Engine and Princess Jasmine as the Most Admired Man and Woman in America. An optional rear air-conditioning unit brings cool air up the D-pillar to both overhead and side panel vents. Lack of headrests on rear bench seats is incongruous in this safetyfest. The Ford stereo is a corporate parts-bin piece, with buttons that are too small.



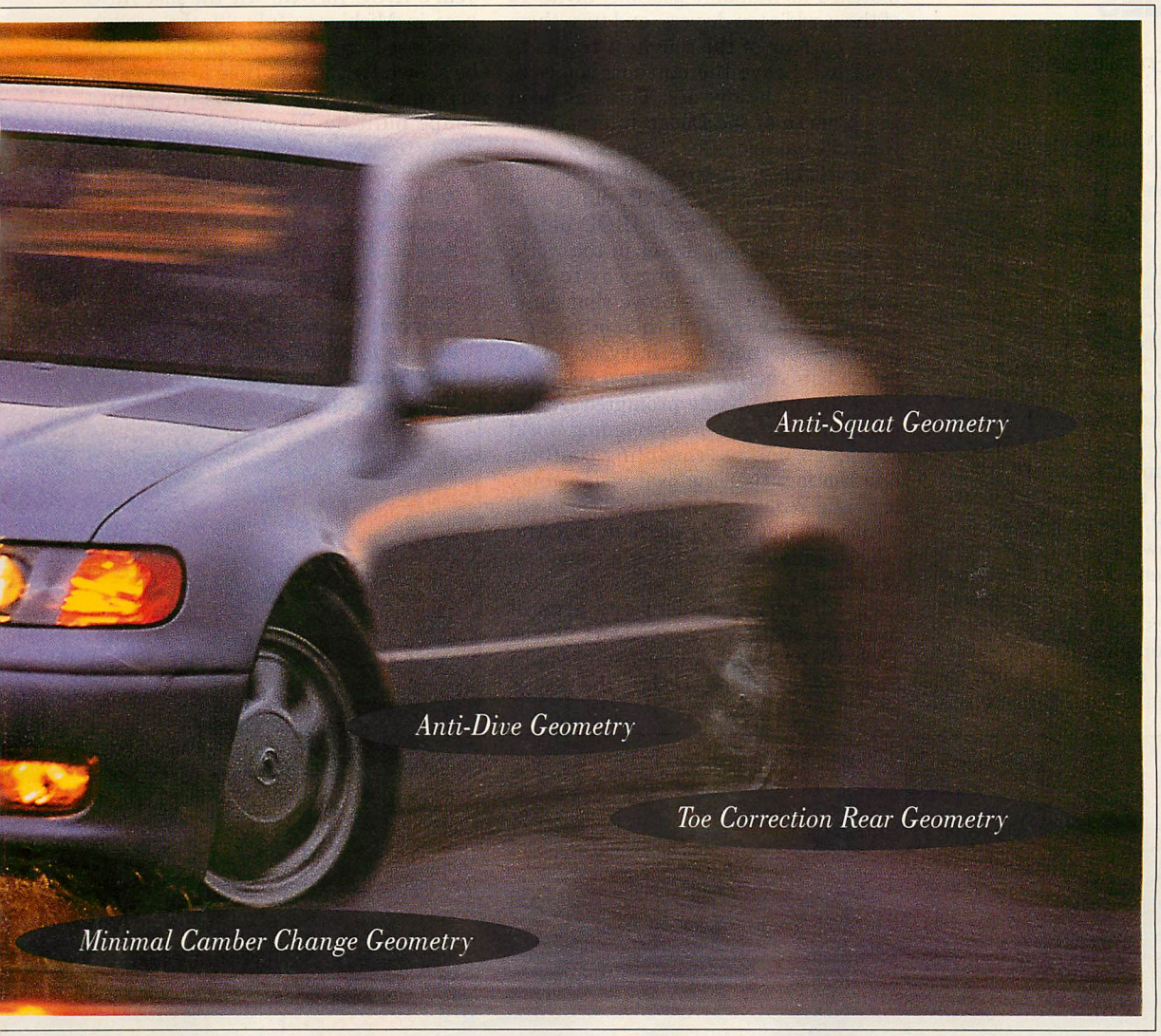
Closely related to those from the Continental and Taurus, the pushrod 3.8-liter V-6 features aluminum heads, long-life platinum-tipped spark plugs, distributorless ignition, sequential electronic fuel injection, and a stainless steel exhaust. Output is 155 horsepower. The optional 25-gallon fuel tank gives the Windstar a highway range of more than 550 miles.



And You Thought You'd Geometry After

Chances are, you haven't found a practical use for calculating the angles of an isosceles triangle,

© 1993 Lexus, A Division Of Toyota Motor Sales, U.S.A., Inc. Lexus reminds you to wear seat belts and obey all



Never Need High School.

but all is not lost. One ride in the Lexus GS will quickly restore your faith in the virtues of geometry.

The suspension of the Lexus GS has been designed to provide a firmer feel without sacrificing comfort. Still further adjustments were made to help reduce front-end dive during braking as well as body roll during cornering. The end result is truly a driver's car.

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DODGE'S DAYTONA REPLACEMENT DEBUTS IN THE '94 IROC SERIES

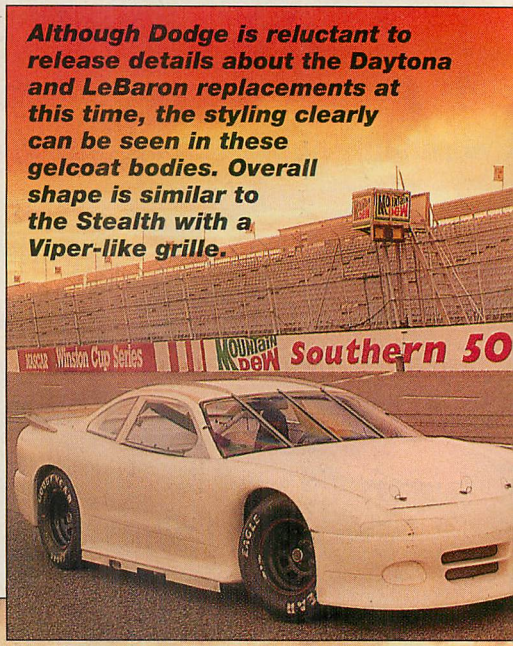
by Leonard Emanuelson
PHOTOGRAPHY BY RANDY LORENTZEN

Who's the best race-car driver in the world? Is it Nigel Mansell, the only man to win back-to-back Formula One and PPG IndyCar World Series championships, or perhaps Alain Prost, the man with the most F1 wins ever? Who can ignore the intensity and success of Ayrton Senna, Dale Earnhardt, Michael Andretti, or Steve Kinser? Can we look at last season's statistics and assume that somehow the enormous talent of Al Unser Jr. or Bill Elliott mysteriously disappeared? Of course not. When Senna was whipping ol' Nigel, was he a better driver than he is now? Have Prost's good and bad years been solely a reflection of his driving? No way! To a great extent, a racer's fortunes shift in response to many factors beyond just driving skill.

So how do you determine who's the best driver? Eliminate all the external forces that control the outcome of racing today: money, team talent, equipment, car setup, pitstops, and qualifying. Then provide 12 race cars that are as evenly matched as humanly possible, invite 12 of the world's top drivers, and turn them loose on four of the toughest tracks in America. Leave the outcome solely to the skill of the drivers. This has been the premise of the Dodge International Race of Champions for 18 years.

Les Richter, chairman of IROC and vice president of NASCAR, put it this way, "We don't know if IROC determines who the best driver in the world is, but we sure go a long way toward that goal. IROC does prove that some drivers have more skill than others, regardless of their specialty or background in racing." Richter's reservations are most likely prompted by the inability to involve every reigning world champion due to scheduling conflicts and the fact that the oval venues may offer the Winston Cup drivers some advantage. Nothing's perfect, but the IROC format is as close as anyone has yet come.

Jay Signore, president and general manager of IROC, is preparing for his 18th IROC series and season. And a busy one it will be. Dodge, the series' primary sponsor, is making a bold public-relations move by debuting the replacement for the aging Daytona (rumored to be named the Avenger) as this year's IROC race car. At the last IROC race in Michigan, July 30, the production-based street version of the car will be shown for the first time to the public. It's purported to be a front-drive sport coupe built by Diamond-Star Motors

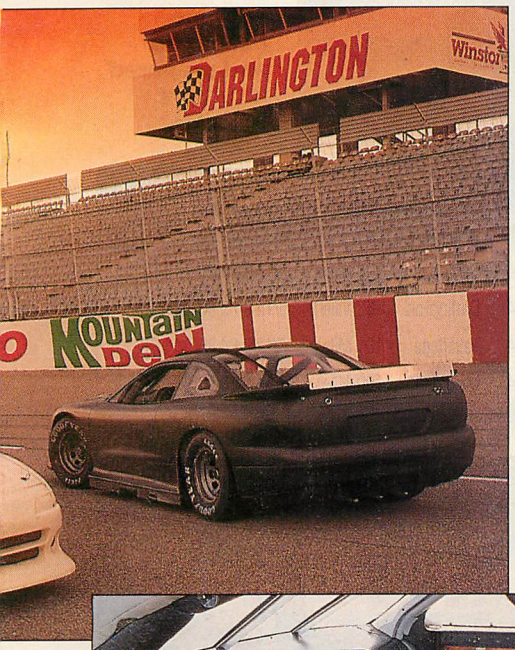


Although Dodge is reluctant to release details about the Daytona and LeBaron replacements at this time, the styling clearly can be seen in these gelcoat bodies. Overall shape is similar to the Stealth with a Viper-like grille.

SNEAK PREVIEW

and will replace both the Daytona and the Chrysler LeBaron coupe. What this means for Signore is a full race-car development program and the construction of 24 new cars.

Thanks to an invitation from Dodge to attend an IROC test session at Darlington Raceway, we're able to show you what the new Avenger will look like. We can also tell you what it feels like to drive one of these purpose-built racers flat-out on NASCAR's toughest superspeedway.



A Dodge IROC race car can be described as similar in construction, weight, and power to a Busch Grand National car. Signore starts with a Banjo Matthews tube chassis, adds unequal-length tubular A-frame front suspension, and a Stock Car Products quick-change live rear axle on a trailing arm/coil-spring suspension. Penske deflected disc shocks are used because they're easy to adjust and provide superior damping. Carbone Industries' 12-inch-diameter vented carbon rotors and carbon brake pads are mounted front and rear. The engine is a production-based 355-cubic-inch V-8 massaged to produce 490 horsepower at 6800 rpm and 405 pound-feet of torque at 5600 rpm. Both the block and heads are cast iron, and the induction system is a simple Holley four-barrel carb. No high-tech here, just the essentials to produce repeatable, reliable performance for the 500 miles that these cars race in a single season.

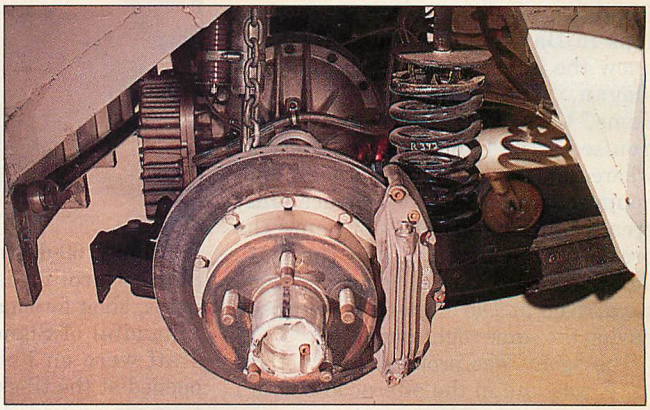
The husky V-8 is backed by a multidisc clutch and a Richmond Gear T10X manual four-speed. Linking the power to the rear is a Dana aluminum driveshaft.

The new Avenger racer is identical under its skin to the Dodge Daytonas that have raced for the past four years. The real news is its swoopy new shape and the novel method that Signore and his crew use for mounting the all-fiberglass body panels. When the clay model was wind-tunnel tested at Lockheed, little locating points were carved into several body panel locations. The points were also put into the fiberglass body molds. The body panels are hung precisely on the chassis at a 6-inch ride height, and the profile and shape of each car exactly replicate the others. Signore points out that by being more accurate aerodynamically it's much easier to equalize the handling and speed of each car.

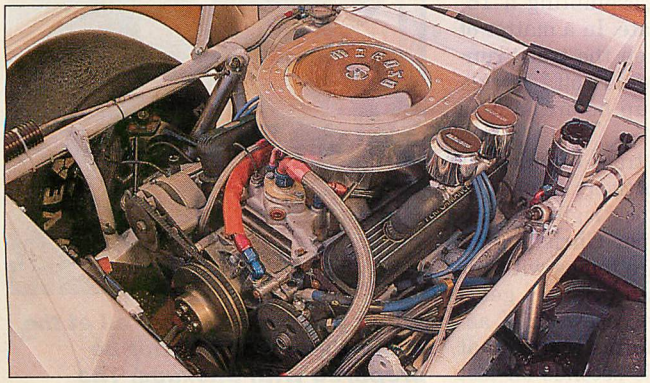
Aerodynamically, the Avenger is a vast improvement over the Daytona it replaces. It's a coupe as opposed to a hatchback, which, according to Signore, really cleans up the airflow around the B- and C-pillars. It's also about 5 inches shorter from the spindle to the front end. To compensate for this, Jay added a larger chin spoiler. Surprisingly, downforce is gained not only on the front of the car, but more centrally because the shorter nose has less leverage.

When the call came in to *Motor Trend*, I was appointed the designated

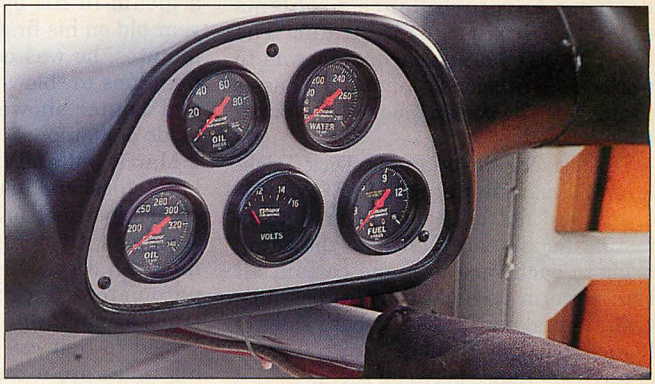
The Butler aluminum seat with extended thigh supports is extremely comfortable. Driver safety is Signore's primary concern, as evidenced by the stout rollcage and onboard fire-prevention system.



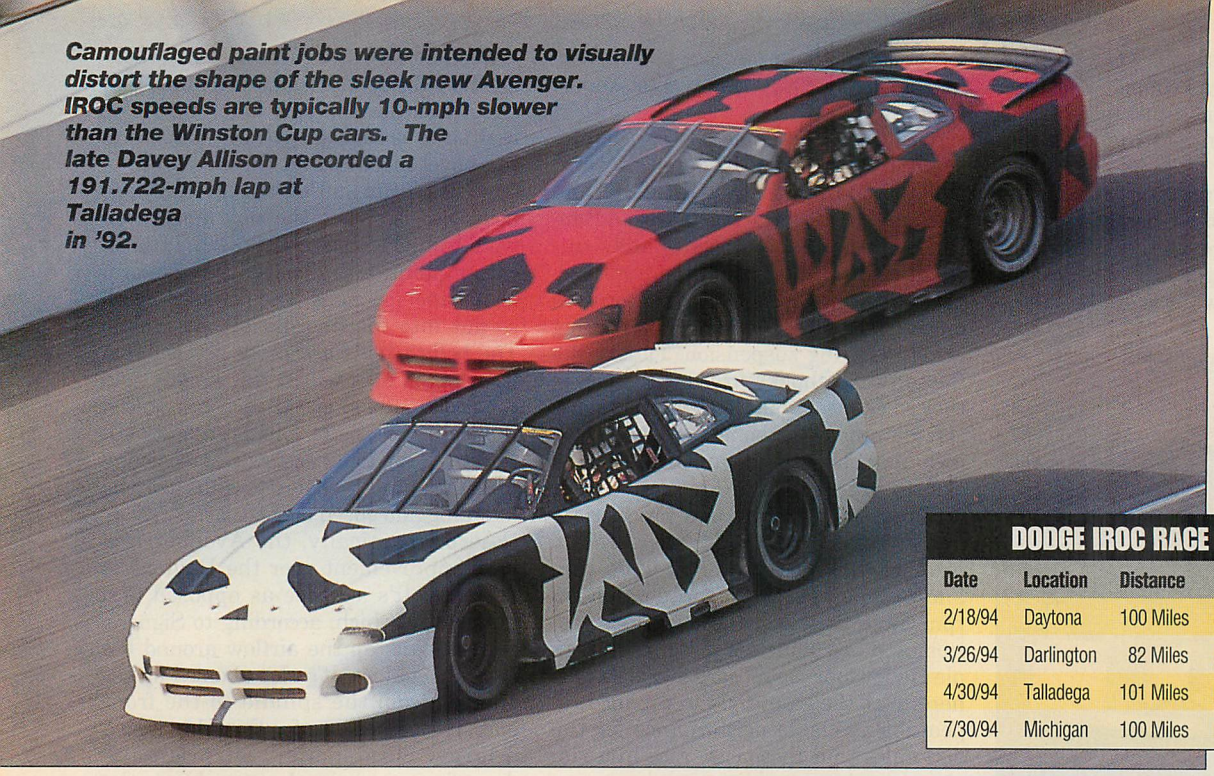
Banjo Matthews' tube chassis features a trailing-arm/coil-spring suspension mounting a live Stock Car Products quick-change rear end. Ratios vary from 3.08 at Talladega to 3.83 at Darlington.



The 355-cubic-inch Mopar V-8 produces 490 horsepower and is basically bullet-proof.



Clean detail and workmanship are Signore trademarks. The neat central gauge panel is an example.



Camouflaged paint jobs were intended to visually distort the shape of the sleek new Avenger. IROC speeds are typically 10-mph slower than the Winston Cup cars. The late Davey Allison recorded a 191.722-mph lap at Talladega in '92.

Veteran test drivers (below) Sauter, IROC President Signore, Marcis, Trickle, and a host of professional IROC crew members provide drivers with the best setup and prepared race cars possible.

DODGE IROC RACE SCHEDULE

Date	Location	Distance	ABC Television Coverage
2/18/94	Daytona	100 Miles	3/13/94 5:00PM EST
3/26/94	Darlington	82 Miles	5/15/94 3:00PM EST
4/30/94	Talladega	101 Miles	6/12/94 4:30PM EST
7/30/94	Michigan	100 Miles	8/14/94 5:00PM EST

driver because I had worked with Jay and Barbara Signore on many past IROC projects. I thought to myself, "This is great, just great. Why couldn't I have been invited to the Daytona test?" I had logged about 15 hours worth of laps in Daytona 24-Hour races and knew the line fairly well. Darlington's slogan, "The Track Too Tough To Tame," kept running through my mind. You see those bumper stickers everywhere, and I can still hear the TV announcer hyping last year's race. Just great. I had nightmares of being the press weenie that put'r in the wall. Judging from Signore's demeanor when we arrived at Darlington, he had been having the same nightmares.

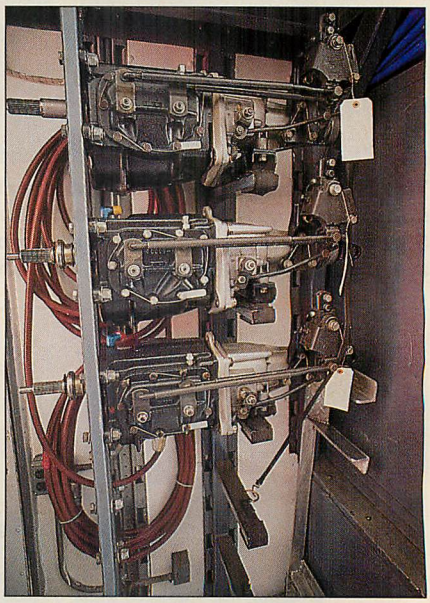
The agony was prolonged for both of us. It was late in the afternoon before I got my sweaty palms on the steering wheel. Signore and his crew had many test laps to run and setups to evaluate.

The first track test at Daytona Speedway was a four-car run to work out drafting and turbulence problems caused by driving in race traffic. The test we attended in Darlington was to work on suspension settings and chassis tuning for the super-tough egg-shaped 1.3-mile oval.

Test drivers Dave Marcis, Dick Trickle, and Jim Sauter are all NASCAR veterans and not only do the preseason testing for Signore, but also the setup prior to each race to make certain all cars perform as identically as possible. Counting Signore's time on both sides of the pit wall, there's more than 100 years of race experience between them.

The Darlington test was early in November. It was one of those beautiful, sunny, 60-degree fall days for which South Carolina is famous. The Signores, shop foreman Gary Rogers, and a handful of Signore's 25-man IROC staff were on hand when the gates opened at the track at 7.30 a.m. By the time we arrived, 45 minutes later, the two semis were unloaded, and four new Avengers sat ready in the garage area. Dave Marcis was the first test driver on the scene. Fifty-something Marcis had a gleam in his eye resembling a 16-year-old on his first date. In a matter of minutes, he was out on the track running laps to "blow the dirt off." Trickle and Sauter showed up before Marcis made a pitstop.

Marcis pulls off the track down on pit lane, stops, and instinctively cranks the steering wheel full-lock right so that Goodyear tire engineer Chris Johenning can check the tire temps with his pyrometer. Trickle and Sauter get a track report, and the crew chief assigned to that car informs Marcis that his times are a couple seconds off last year's lap times here. Dave claims the car's a little on the loose side, which is



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confirmed by the tire temperatures.

No changes are made, and all three drivers go out for a more intense eight- to 10-lap session. The times come down as both track and drivers warm up. All three pit and have a teleconference over the headsets with Signore and the respective crew members. The first order of business is to improve the braking by sanding the carbon/carbon brakes. It seems the entry into Turn 1 requires heavy braking, and Dick Trickle is pretty emphatic that there wasn't any.

As the day progresses, the shock valving is changed, ballast weight is moved around in the car, and some new, wider Goodyear race radials are tested. Lap times have decreased by almost 4 seconds, and all three drivers agree on the setup. With the bulk of the testing out of the way, it's now time for me to take the wheel for a driving impression. Signore suggests that Trickle should first drive me around in a street car to show me the proper line. The two of us jump into a '93 Dodge street IROC, and he proceeds to graphically show me the line and an up-close view of the Darlington wall at 130 mph. And it's good that he did, as I—like most people who've raced at Darlington—would never have figured it out.

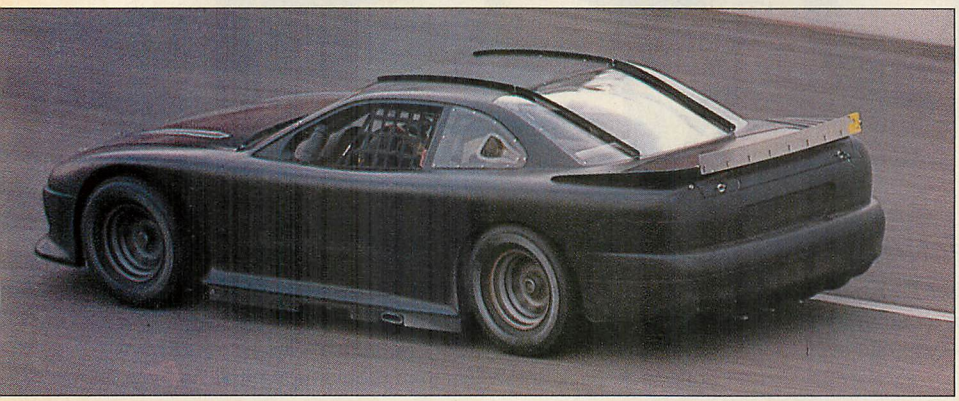
Signore then tells me all the horror stories of unqualified IROC drivers and reminds me to take it easy another five or six times. I get strapped into the car that Ken Schrader test drove at Daytona. We must be close in size because the controls are within my reach. (The seat and steering wheel adjust with some mechanical tinkering to accommodate various-size drivers.)

I pump the accelerator pedal a couple times, reach over and hit the starter toggle switch, crank the engine until the oil pressure appears, then flip the ignition toggle switch with the same hand. Even with ear plugs and the Simpson helmet pushing tightly on my ears, the V-8 barking to life sounds healthy.

Darlington is NASCAR's first superspeedway, and it gets its tough reputation primarily because it isn't a true symmetrical oval. Race teams and drivers inevitably can get the cars to work well at one end or the other, but not both. What isn't so well known is that Darlington is a cheese grater of a racetrack. The coarse aggregate in the pavement literally grinds the rubber off the tires in a matter of laps. In fact, there will be a mandatory stop-the-race pitstop at 30 laps in the Darlington race so the cars can safely travel the 60 laps—or 83 miles—required.

With Signore telling me to only run about eight laps because the tires will start to lose rubber, I slip the shift lever into first and head out to the oval "too tough to tame." I start slowly, but the car feels so comfortable that I quickly pick up the pace. The low seating position enables me to see well ahead in the steep banking. Trickle's line takes the racer low in Turn 1, where, under trail braking, the car drifts up into the high groove.

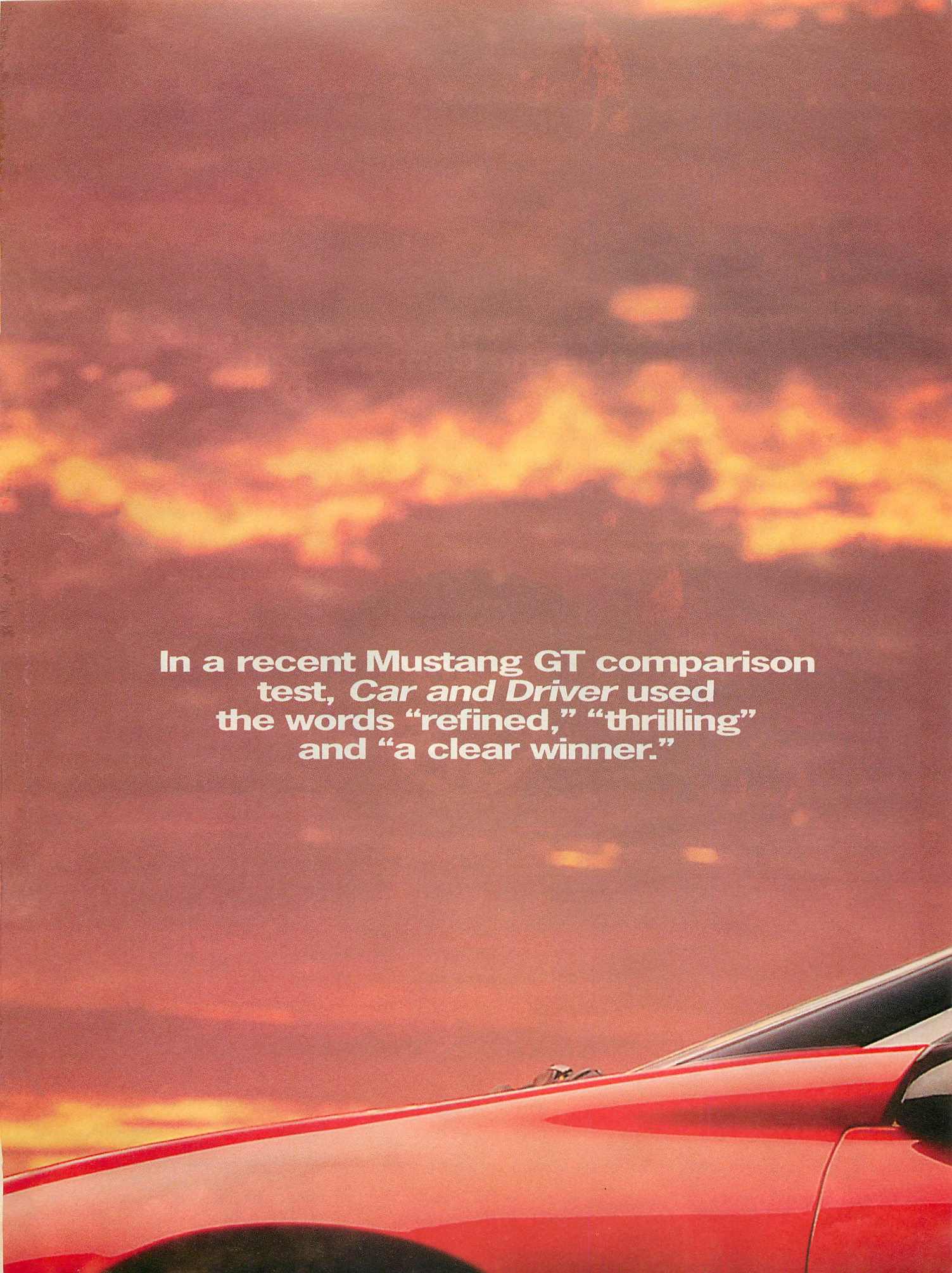
As soon as I'm sure the high groove is as far as I'm going to drift, it's time to stand on the throttle all the way to Turn 3, where I briefly lift off the accelerator entering the turn in the middle lane, and as soon as the car begins to turn, bury the throttle and hold it down until Turn 1. I'm amazed at how easy these cars are to drive. They're extremely neutral, and the steering is positive. They go wherever you point them. I come in after eight laps with a grin ear-to-ear. Jay has that look of a proud father. And why not? The fact that I could go out and run fairly well at Darlington (I didn't threaten Marcis, Trickle, or Sauter's jobs) validates that these cars are the perfect weapons for racers of any discipline. MT

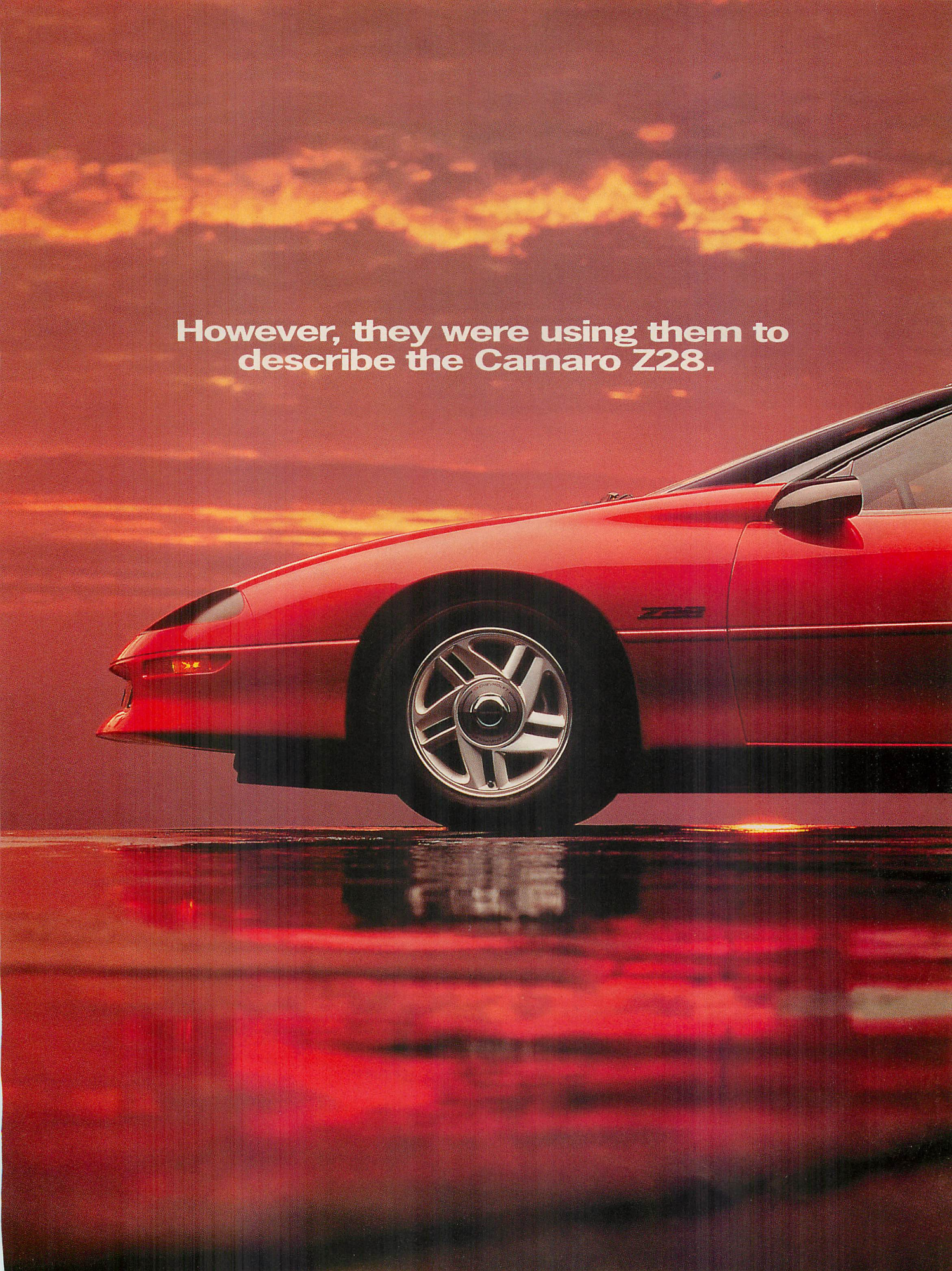


Although these test mules look crude here, IROC series sponsors Dodge, True Value, Bosch, and Mopar Performance will be proud of Signore's IROC crew's detail and finish, which is second to none.

Much time and effort are spent getting the cars set up as well as possible, so the series drivers don't have to "carry" the car. Below: Dave Marcis confers with IROC crew and other test drivers over the radio system.

Spare motors are packed with Mopar Performance parts and swapped into the cars at any hint of engine problems or inequality in performance.


In a recent Mustang GT comparison
test, *Car and Driver* used
the words "refined," "thrilling"
and "a clear winner."


However, they were using them to describe the Camaro Z28.

To quote *Car and Driver*, "In nearly every performance measurement we take, the Camaro Z28 runs all over the Mustang GT." Words like those are pretty convincing. So if you're looking to replace your old pony car, may we suggest the 275 horses shown above. See your Chevy dealer to test drive the 1994 Camaro Z28. For more information and a complete reprint of *Car and Driver*'s Camaro Z28/Mustang GT comparison, call 1-800-950-2438. What else would you expect from the country that invented Rock and Roll?™

CHEVY CAMARO

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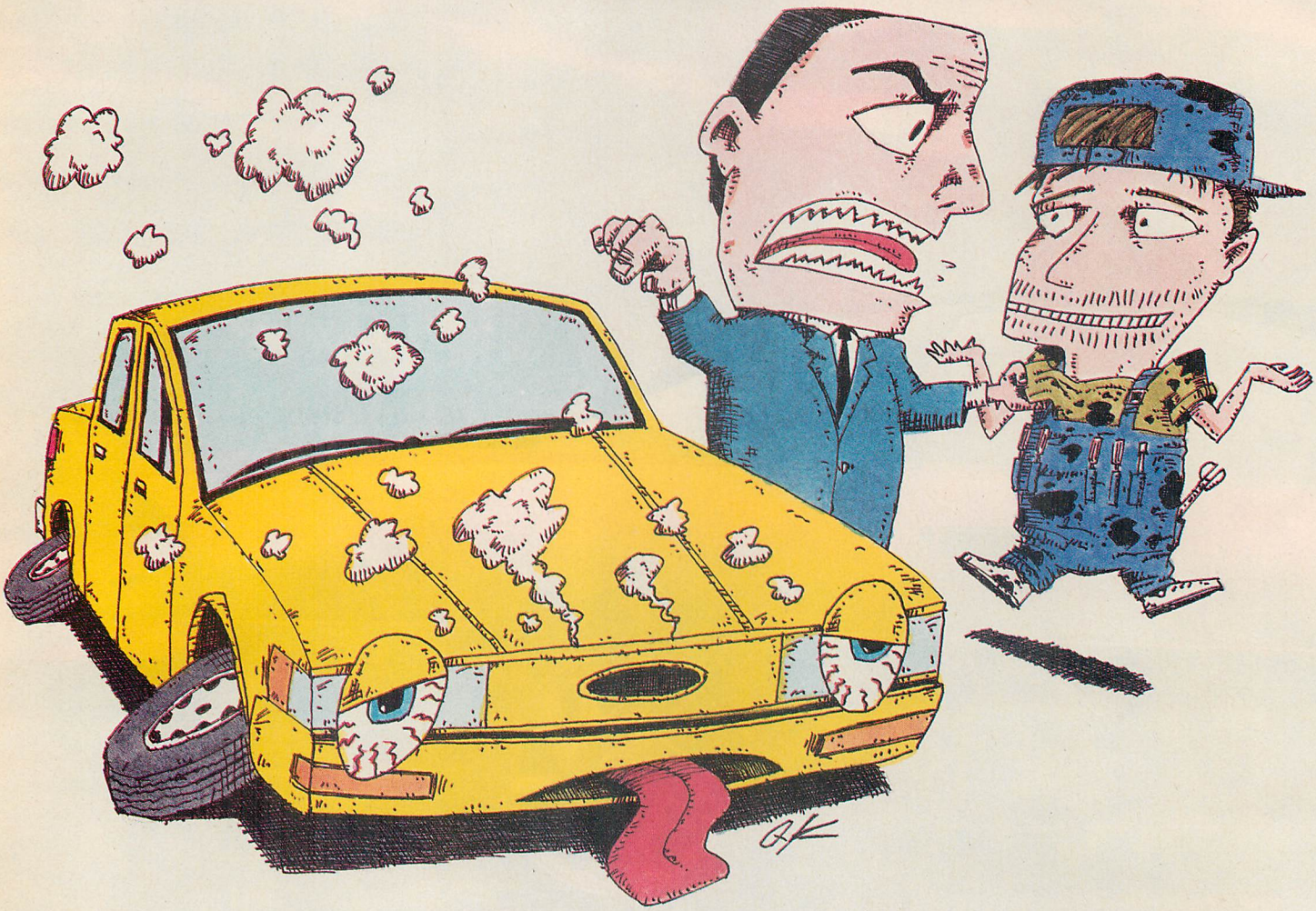
WHEN THINGS GO WRONG



WHERE TO TURN WHEN YOU JUST CAN'T GET NO SATISFACTION

by Rik Paul

ILLUSTRATIONS BY QUINN KANEKO

In his book, *The Complete Consumer Car Guide*, Mike Spaniola quotes a dealership sign that reads, "Your car has over 14,000 parts, and even if it were 99.9-percent perfect, there would still be 14 things wrong with it." Using that logic, today's cars seem almost miraculous. In fact, according to the latest Initial Quality Survey conducted by J.D. Power & Associates, the average number of reported defects during the first 90 days of ownership is a mere *107 per 100 cars*. By projection, that makes them 99.9997-percent perfect during the first year, and 99.998-percent perfect during the first five years.

Still, this numbers game is no consolation for the unlucky few who encounter the occasional problematic vehicle or full-fledged lemon. Every month we receive irate letters from readers who are frustrated with their successive attempts to rid their vehicle of plaguing problems, unresponsive warranty action, and related circumstances. In fact, according to the Federal Trade Commission, auto defects and repairs still rate as the number one source of consumer complaints. Of course, this ranges well beyond mere vehicle faults to include what drivers view as unknowledgeable mechanics, poor workmanship, shady parts scams, overcharging, and the rest of the collective nightmare owners associate with the auto repair experience.

What can you do if you find yourself with a troublesome car and little support? There's help, advice, and guidance out there if you know where to look and how the system operates.

TIPS FOR AVOIDING SERVICE PROBLEMS

Your first line of defense is to nip potential problems in the bud by staying on top of your car's servicing. One of the most critical rules is to keep your vehicle's warranty in effect by having all scheduled maintenance done at the proper time. Skipping routine maintenance intervals could void the warranty, leaving you financially responsible for repairs.

The scheduled maintenance doesn't have to be performed by your dealership. It can be done by an independent repair shop or by yourself. Either way, you must be able to prove it was done on time. Keep all records, repair orders, and receipts so you can show the dealer if necessary. If you do the work yourself, write the odometer mileage on the back of any parts receipts.

Whether you go to a dealership or a shop, when you drop off your car, give the service writer as complete a description of the problem as possible, especially if it's subtle or intermittent. Remember, what's obvious to you may not be to someone who doesn't drive the vehicle every day. Explain the exact circumstances under which you notice the trouble, such as if it's at a certain rpm, when the engine is cold or hot, while accelerating, etc. By ironing out misunderstandings on the first visit, a second one is often avoided.

Also, be aware that some things that might appear abnormal or problematic may just be ordinary characteristics of the vehicle. For instance, some drivers complain that their automatic transmission shifts back and forth between fourth and third gears while climbing hills, when actually this is typical of many transmissions as they hunt for the right gear.

In addition, always find out in advance exactly which repairs and parts will be covered under warranty and which won't. Check this against your written warranty to make sure you're getting everything to which you're entitled. This eliminates any unpleasant surprises when you pick up the car.

CALLING FOR HELP

After several successive visits, if things begin to stall at the dealership/shop, and you're still not satisfied with the repairs, you need to begin considering other options. One is to ask for a refund or adjustment on the unsuccessful work, and take your problems elsewhere. If this is impractical or the dealership/shop won't cooperate, it's time to call in outside help. Here, the route you take will differ. When you're working with a dealership, there's a formal complaint system in place that you should stick with for now. If your beef is with an independent shop, try the sources mentioned in the accompanying section, Outside the System.

When locking horns with a dealership, the next step is to contact the manufacturer's regional office (sometimes called a district or zone office). The regional manager has the ability to authorize repairs or a refund at the manufacturer's expense, and you should be able to get his name and phone number from the dealership.

After calling the office, always follow with a letter, which includes copies of all documentation to date, the name and address of the dealership, and appropriate vehicle information, such as the car's VIN, model year, make, model, mileage, and purchase date. Again, be civil, but make it clear that you want action and will not drop the issue.

Give the regional manager a fair shake, but should you eventually find that this path is getting you nowhere, your next contact is the manufacturer's owner-relations department. Many times, this information is in your owner's manual. If not, get it from your dealership or regional contact.

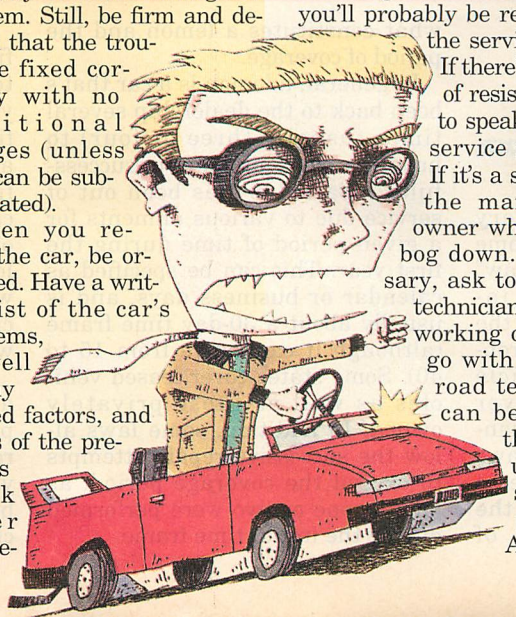
At this point, it pays to be a squeaky wheel. So, be thinking of other options, as well. If you think you may have a lemon-law case, contact your state attorney general's office (in care of your state capital) to obtain the necessary information. You may want to get advice from outside consumer organizations, as well. But, in terms of action, you should stick with the manufacturer's established system until you've exhausted all avenues.

Repeat Visits

If you drive your car after a repair and find that either the symptom is still there or that it returns after a short time, immediately call the facility and tell them about the unfixed problems and that you want to return the vehicle as soon as possible. Quick action is important. Don't delay.

Be courteous and respectful, and demonstrate a willingness to work with them. Don't immediately assume that they're trying to rip you off. Auto repairs can be complicated. Everyone makes mistakes. And sometimes problems are misdiagnosed the first time. Charging in and firing salvos right away could only alienate the very people you need to solve the problem, creating resistance and possibly making the path ahead rockier than it need be. Also keep in mind that part of the blame could be on you for not fully communicating the problem. Still, be firm and demand that the trouble be fixed correctly with no additional charges (unless they can be substantiated).

When you return the car, be organized. Have a written list of the car's problems, as well as any related factors, and copies of the previous work order and receipt. This will send the message that you have your stuff together, and will help deter anyone who might try to take advantage of you. If you're working with a dealership, you'll probably be received by the service writer. If there's any sign of resistance, ask to speak with the service manager. If it's a shop, go to the manager or owner when things bog down. If necessary, ask to have the technician who'll be working on the car go with you on a road test so you can be sure he thoroughly understands the problem. Also, now's a good time to check into any technical service bulletins that might relate to your car (see the accompanying sidebar, Behind-the-Scenes Bulletins).



If after a second visit the trouble still isn't fixed, again contact the dealership or shop and schedule a new appointment. It's likely frustrations are going to start running high on both sides. As long as the dealership or shop is willing to work with you, and seems sincere in its efforts, have patience and let them try to sort out things. At this point, you may also want to take the vehicle to another dealership or repair shop to get a second opinion. It may involve a small fee, but don't have them do the work, as you'll have to pay for it all over again. If they suspect another cause or suggest a different solution, discuss this with the original technician.

WHEN THINGS GO WRONG

Arbitration: Letting a Neutral Party Decide

When all else fails, arbitration is a now-common way of settling repair disputes without incurring the cost and time of going through the courts. Basically, it allows an impartial board to hear both sides of the story and then decide for one party or the other, or on a compromise between the two. Most car manufacturers participate in a formal arbitration program that can be used as a last resort.

Ford and Chrysler both operate their own programs. Most other auto makers participate in independent programs run by the Better Business Bureau (AUTO LINE) or National Automotive Dealers Association (AUTOCAP). (A program operated by the American Automobile Association was recently dissolved.) The NADA, which works primarily with dealership/consumer disputes, says the number of complaints they receive has fallen drastically over recent years due to increases in quality and a stronger emphasis on customer satisfaction. Arbitration is also available through state or local programs. Contact your state attorney general's office.

Get the details on any available program before you commit to one, so you can decide which is more advantageous to you. The arbitration board may try to mediate a solution before a hearing is scheduled; and the BBB estimates that about 60 percent of its cases are settled at this stage. Some arbitration programs are binding on the dealer or manufacturer, but not on the car owner. This is important, because if things don't go your way, a program that binds you to the decision leaves no other recourse, including the option to file a lawsuit. When, on the other hand, the decision isn't binding, you can reject it and still pursue your case in the courts. Either way, should you accept the decision, you're bound to it unless the other party doesn't comply with the arbitration terms. For instance, if the dealer is ordered to fix the problem, but still can't, you can start over again with new arbitration or sue for a refund or replacement.

A consumer can contact an arbitration program at any time, but usually it'll insist on all other available steps being taken first. The arbitration hearing can be conducted either in person or by each party submitting written documentation. In either case, disorganization will weaken your claim and work against you. Be meticulous in your preparation. Have separate copies of all documentation available for every panel member. Also, ask if you can receive copies of the material submitted by the other party, so you have a chance to answer any points you feel need to be clarified.

Keep in mind that not all complaints are eligible for arbitration. And some programs will only hear cases under warranty. Claims are usually limited to either having the vehicle fixed correctly or being refunded the vehicle's cost. You may be able to include the cost of any rental cars that were required while your vehicle was out of service, but financial compensation for loss of work, pain and suffering, or punitive damages won't be considered.

Patience is needed through all these steps, but fortunately, a decision will usually be made within 40-60 days of filing the complaint. Have heart, the end will be in sight.

Arbitration Programs

Chrysler Customer Arbitration Board
Consult owner information packet or call Chrysler Customer Center:
800/992-1997

Ford Dispute Settlement Board
P.O. Box 5120
Southfield, MI 48086
800/241-8450

AUTOCAP
National Automotive Dealers Association
8400 Westpark Drive
McLean, VA 22102
800/254-NADA
Participating manufacturers: Acura, BMW, Fiat, Honda, Isuzu, Jaguar, Mitsubishi, Nissan, Rolls-Royce, Saab, Volvo.

BBB AUTO LINE
Better Business Bureau
800/955-5100
Participating manufacturers (national): Acura, Alfa-Romeo, Audi, General Motors, Honda, Infiniti, Isuzu, Nissan, Saturn, Volkswagen. (BMW, Jaguar, Maserati, Mitsubishi, Peugeot, Land Rover, Rolls-Royce, Saab, Sterling, Subaru, and Volvo also participate in certain states.)

Lemon Aid

Almost every state now has some type of "lemon law" on the books intended to shift the burden of a problematic vehicle from the buyer back to the manufacturer. The laws vary from state to state, including the interpretation of what constitutes a lemon and the period of coverage.

In general, a lemon is a car that's been back to the dealership several times (usually three or four) to have the same problem unsuccessfully repaired *or* has been out of service due to various ailments for a given period of time during the first year. This can be specified as calendar or business days, and is usually about a 30-day time frame (although it can range from 15 to 40). Some states cover leased vehicles as well as those privately owned. In addition, some laws allow the successive repair attempts to exceed the coverage period, as long as one or two were performed during the initial time frame.

If you think your vehicle qualifies as a lemon, your first step is to get all related information from your state attorney general's office. Then notify the manufacturer and/or dealer that you intend to file a lemon-law complaint. Typically, the dealer will be entitled to one more attempt to fix the problem. But should this fail, the case will go to arbitration, where a decision on enforcing the lemon law will be made.

Remember that, even if you win, and the manufacturer has to replace or buy back the vehicle, a reasonable amount for the mileage you've already put on the car will be deducted from the original purchase price.

OUTSIDE THE SYSTEM

Whether you're arm wrestling an independent repair shop or a dealership, there are a number of sources that can provide help and advice. After all, the more support you can muster for your cause, the better prepared you'll be, and the more pressure the other party will feel to work with you. Remember, any time you write a letter to an outside organization, always send a copy to the dealership or shop to let it know you're actively pursuing the issue. Here are some suggestions.

- File a letter of complaint with the local office of the Better Business Bureau. Look in your Yellow Pages or call the National Council of the BBB at 800/334-2406.
- Take your case to consumer advocates in the local media. Many newspapers and television stations have consumer-protection-type services.
- If the amount in dispute is a few hundred dollars, you may be able to file in a local small claims court, for which you won't need a lawyer.
- When everything else fails, and you decide to pursue a lawsuit, choose an attorney who's familiar with auto repair and warranty complaints. The local bar association or, for lemon-law cases, Center for Auto Safety (2001 S St. NW, Washington, DC 20009) may be able to recommend lawyers in your area with the right experience.
- If the repair shop you're in dispute with is affiliated with or certified through a national organization (such as AAA, a tire company, oil company, or national retail chain), contact the customer relations office at the organization's corporate headquarters.
- Local consumer agencies can offer advice, guidance, and referrals, but often charge a fee.
- In addition, to mounting support through these routes, you can also arm yourself with a number of printed reference sources.

The Center for Auto Safety offers individual information packets for various car models, which cover any recalls, TSBs, and common defects, as well as what to do about them. Send the year, make, and model of your vehicle, along with a stamped, self-addressed envelope to the center at the address listed above.

The U.S. Office of Consumer Affairs (Consumer Information Center, Pueblo, CO 81009) offers the *Consumer's Resource Handbook*, which lists the names, addresses, and phone numbers of city, county, state, and federal consumer agencies.

Informative reference books on the subject include *The Lemon Book*, by Ralph Nader and Clarence Ditlow (Center For Auto Safety); *The Car Book*, by Jack Gillis (HarperPerennial); *The Complete Consumer Car Guide*, by Mike Spaniola (McGraw-Hill); *Rip-off Tip-offs*, by Robert Sikorsky (Tab Books); and *Driver's Survival Handbook*, by Wade Hoyt and Roy Doty (Paul Wahl).

BEHIND-THE-SCENES BULLETINS

It's not unusual for a car model to develop unforeseen problems that aren't covered in the service manual. When this happens, the manufacturer's service people will often design a fix for the trouble area that's then communicated to the dealerships through what's usually called a technical service bulletin, or simply, TSB. Most of the time, this system works well. But a disorganized technician or dealership could be unaware of a TSB that's related to your car's problem. Worse still, many repair shops don't receive TSBs at all.

If the technician seems baffled by a problem, especially on a newly released model, ask whether there's been a TSB released on it. If his answer is no, but you want to double check, call another dealership, and ask again. Unfortunately, TSBs are sometimes kept under the rug and may require some digging.

Some TSBs also contain warranty amendments or policy adjustments—relating to anything from mechanical problems to bad paint—that allow the dealership to fix the problem under the manufacturer's warranty program and not charge the customer. These, however, are usually not announced to the public, another reason to check on TSBs.

While some manufacturers' TSBs are only available through their dealerships, others can be mail-ordered. Of these, some can be ordered individually (with prices usually running about $2 to $4 each), while other companies only offer bound collections that contain an entire year's worth (which can run anywhere from about $10 to $25).

For information on ordering TSBs from the following companies, call the numbers listed: Audi/Volkswagen, 800/544-8021; Buick, 313/239-5552; Cadillac, Chevrolet, and Pontiac, 800/782-4356; Chrysler, 800/626-1523; Ford, 800/782-4356; GMC Truck, 800/627-5699; Nissan/Infiniti, 800/247-5321.

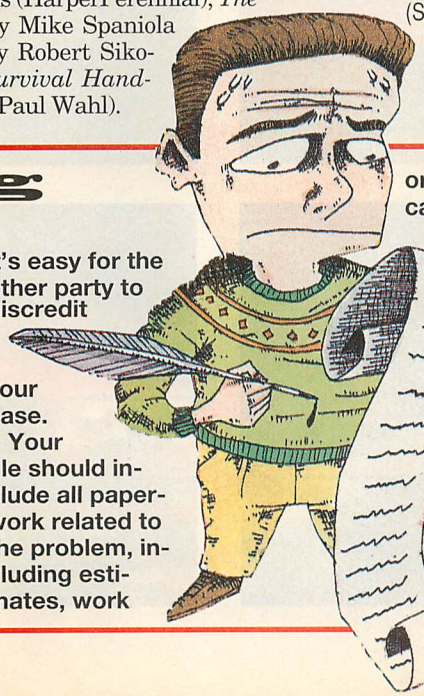
TSBs related to safety items are kept on file by the Technical Reference Library of the National Highway Traffic Safety Administration. Contact the Technical Reference Division, NHSTA, 400 7th Street SW, Washington, DC 20590; 202/366-2768. A list of available bulletins pertaining to your vehicle will run about $20-$35. From this, individual bulletins can be ordered for an additional fee.

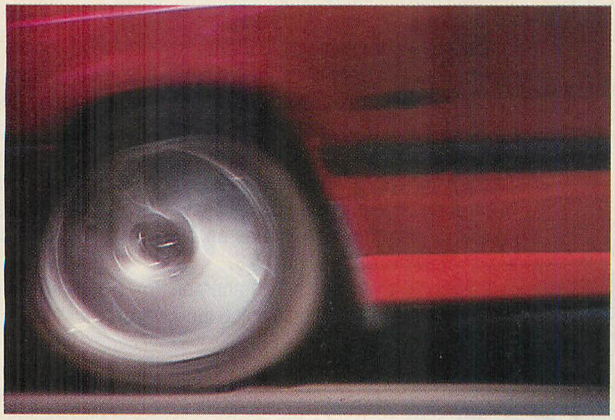
A company called Alldata Corporation also maintains an auto repair database, which contains TSBs for vehicles of all makes dating back to 1978. The company sells their database to repair shops through a CD-ROM subscription service. With this resource, a repair shop can look up TSBs for you. For a participating shop near you, call the company at 800/829-8727 ext. 3052. Ask for an Alldata shop in your vicinity and leave your phone number. Alldata will do a computer search based on your area code and then contact you. For computer users, the company also provides the database as an on-line service for a subscription fee (See Car Care, Dec. '93).

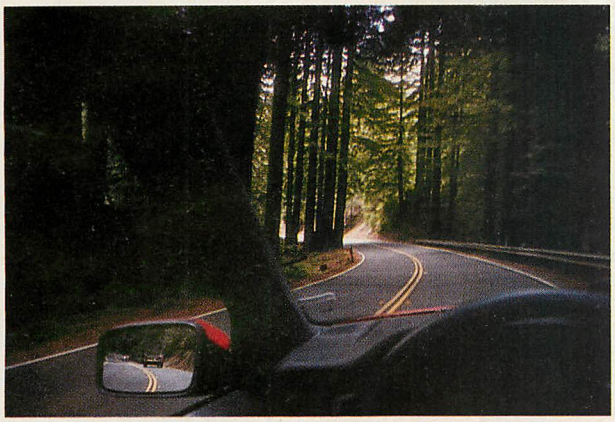
If you do find an appropriate TSB, relate its date and number to the people doing the work on your car.

Building A CASE

No matter what course you pursue in fixing a problem, the key to success is organization. Keep a complete record of all repairs and communication with the dealership/repair shop or other contacts. Accurate records carry a lot of weight within both arbitration and our legal system. In addition, if you're confused and unorganized, it's easy for the other party to discredit your case. Your file should include all paperwork related to the problem, including estimates, work orders, invoices, canceled checks, credit-card receipts, correspondence, and the vehicle's warranty (if appropriate). In addition, for further clarity, maintain a chronological log that summarizes all contacts and events, making it easy for an outside person to become familiar with the situation. Include each service visit and a summary of what occurred or was said (get names and positions), including the cost, labor, and any parts replaced, as well as the times, dates, and summaries of all phone calls. With this kind of preparation, your case will be much stronger when it comes time to negotiate.







FOOL THE WORLD INTO THINKING THAT YOU'RE MATURE.

Introducing the 850 Turbo from Volvo. It's the perfect disguise for adults who aren't quite, well, completely adult yet.

The world knows of its steel safety cage, dual air bags and

Side Impact Protection System. Very mature, very responsible.

But only you need to know about its 222-horsepower turbocharged engine. It's the most powerful engine we've ever produced.

Who says youth has to be wasted on the young?

Drive safely.

VOLVO

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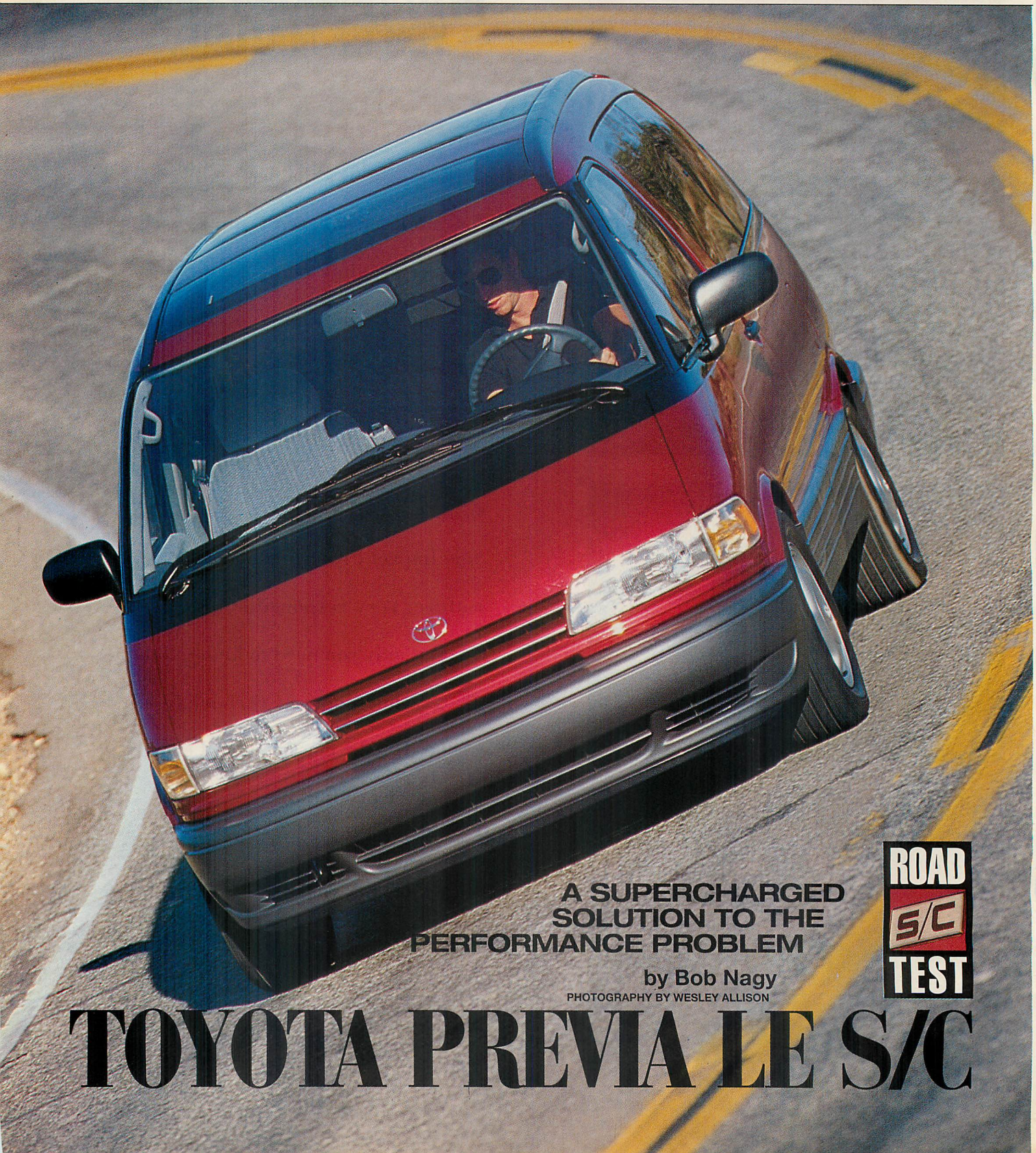
If ever a minivan were born to boutique status, this is it. A futuristic appearance inside and out coupled with a mid-engine drivetrain layout and four-cylinder power have always ensured that the Previa stands alone as a love-it-or-hate-it offering. For '94½, Toyota has added a new wrinkle: supercharging. Yeah, we can hear the cries of disbelief from here. A blower? On a minivan? Are these guys nuts?

To be candid, we too harbored a good deal of initial skepticism about the wisdom of this approach. But after subjecting the newest variation of the Previa theme to a broad range of real-world driving, it all seemed to make a bit more sense. The new force-feeding option directly addresses one of the most significant shortcomings that even Previa proponents admit has plagued this high-profile people-mover since it arrived on the scene in '91: a lack of proper motivation. Along with a most welcome power surge, this virtually



ROAD S/C TEST

A SUPERCHARGED SOLUTION TO THE PERFORMANCE PROBLEM

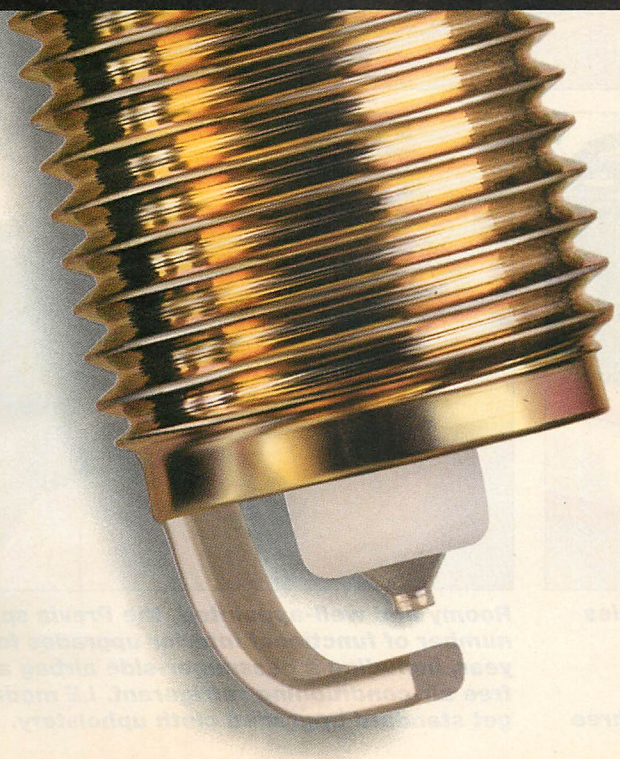
by Bob Nagy

PHOTOGRAPHY BY WESLEY ALLISON

TOYOTA PREVIA LE S/C

BECAUSE THE TOYOTA SUPRA TURBO CAN GO FROM 0 TO 60 IN 4.6 SECONDS, WE MAKE SPARK PLUGS THAT CAN KEEP UP.

THE 1994 TOYOTA SUPRA TURBO



The new Supra Turbo is quite possibly the most sophisticated mass-production car on Earth. And keeping pace with it is quite possibly the most sophisticated spark plug on Earth. The new NGK Premium Platinum Spark Plug. Recommended by Toyota.

More car makers choose our spark plugs because they deliver solid engineering, not the gimmicks found in others.

When you tune your car demand NGK, the #1 spark plug for imports. And get it right from the start.

NGK
RIGHT FROM THE START.

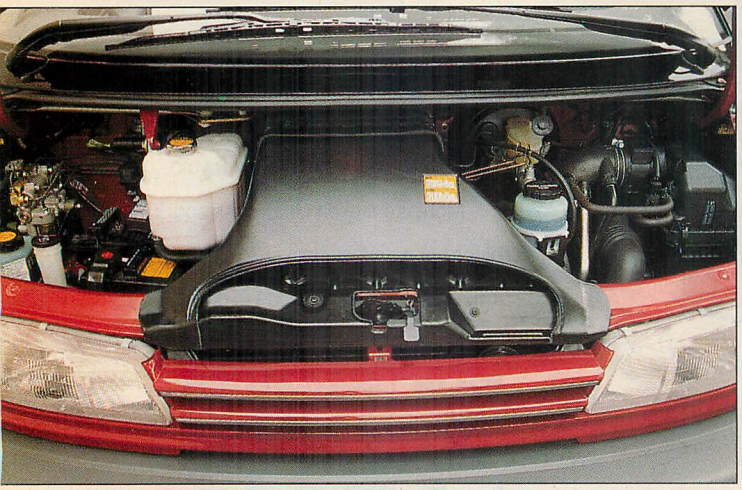
©1993 NGK Spark Plugs (U.S.A.), Inc., 8 Whatney, Irvine, CA 92718 (714) 855-8278. Acceleration test conducted by *Car and Driver*, March 1993.

transparent installation also yields a number of tangible side benefits.

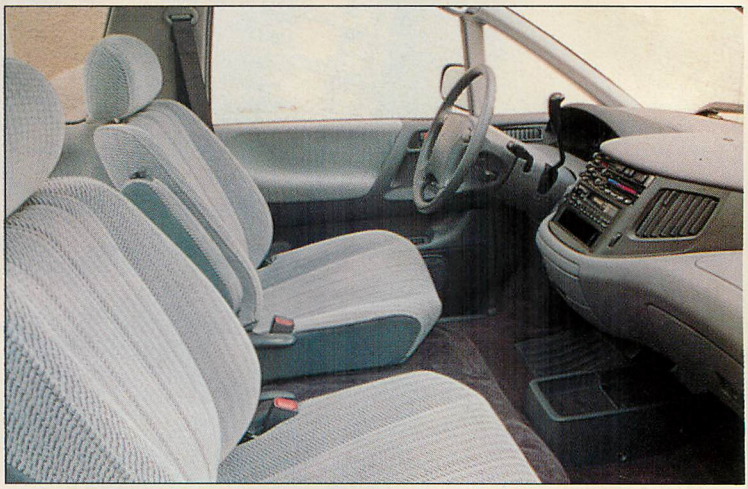
The motor magicians at Toyota reached deep into their bag of tricks to pull off this modern mechanical miracle. Starting with the standard 2.4-liter 16-valve electronically fuel-injected DOHC four-cylinder, they've added a Roots-type supercharger that uses its 6.7 pounds of boost to bring about a remarkable character transformation. Horsepower is increased by 17 percent, from 138 to 161, while torque jumps nearly 31 percent, from 154 to 201 pound-feet. Best of all, this new muscle is accompanied by improved fuel economy. Matched with the smooth-shifting, electronically controlled four-speed automatic—now the sole transmission in all Previa models—the S/C engine delivers up EPA numbers of 18/23 mpg city/highway in a two-wheel-drive LE versus 17/21-mpg ratings for its naturally aspirated counterpart. If that isn't enough, the blower package also is said to contribute to a decrease in drivetrain-related noise and vibration and allows the powerplant to meet '96 model-year emissions specifications.

As part of the new force-feeding regimen, the S/C engine receives some mechanical massaging. Although the compression ratio decreases from 9.3:1 to 8.9:1, operating efficiency is bolstered through the use of an air-to-air intercooler. New, lightweight aluminum pistons have resin-coated skirts to help lower friction and prevent scuffing of the cylinder walls. A system of oil jets also provides them with supplemental cooling. An electro-magnetic clutch similar to that used on the previous-generation supercharged MR2 links the blower to the engine, with engagement controlled by the central powertrain computer.

Maintenance on the S/C promises to be fairly painless. As with all Previas, a quick peek underhood is all that's



Although its supercharged DOHC I-4 engine lies deep within, popping the hood on the Previa permits quick, easy access to all major fluid reservoirs. Even checking the oil level in the compressor unit—required only once every three years/30,000 miles—is done from here.



Roomy and well-appointed, the Previa sports a number of functional interior upgrades for the new year, including a passenger-side airbag and CFC-free air-conditioning refrigerant. LE models also get standard upgraded cloth upholstery.

required to check main fluid reservoirs as well as the fanbelt. The only additional servicing, making sure the oil in the supercharger's compressor unit is at its proper level, is needed but once every three years/30,000 miles. Like the new Camry V-6, the S/C engine also features complete OBD-II (onboard diagnostic) capabilities and comes with Toyota's standard six-year/60,000-mile powertrain warranty in addition to the basic three-year/36,000-mile bumper-to-bumper guarantee.

Just how much more firepower does supercharging really provide? With a 10.2-second clocking, the new S/C proved 2.2 ticks quicker to 60 mph than the last LE we tested and can run head-to-head with any minivan now on the market. A 17.6-second/78.3-mph quarter-mile best also merits kudos. Towing capability remains at 3500 pounds, but the Previa S/C is certain to be a whole lot happier hauling that kind of load around than a naturally aspirated LE would be.

While supercharger "whine" remained nearly imperceptible even under full-throttle acceleration, we noticed a couple of periodic resonant frequencies that produced some discernible growl and shake. However, this tester was an engineering prototype, and some of that dither may well be gone in production models.

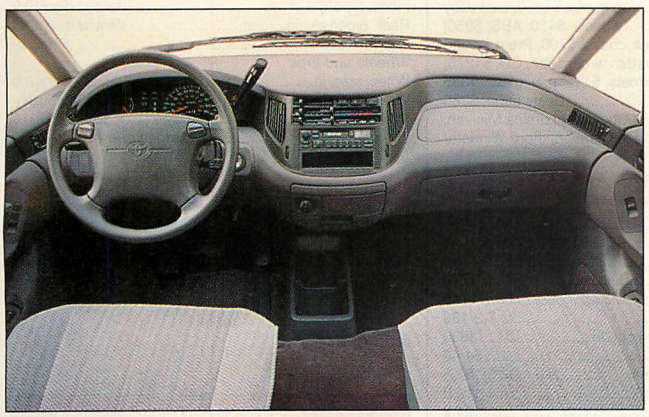
Like other Previa variants, the S/C's coil-spring suspension pairs MacPherson struts and an anti-roll bar up front with a live axle located by four trailing links in the rear. The steering gear is rack-and-pinion with standard power assist. Our LE wore P215/65HR15 Bridgestone Turanza EL40 radials on optional 15x6.0-inch cast-alloy wheels. A 0.70g skidpad effort and 58.0-mph pass through the slalom are valid indicators that the S/C won't be rolling off with many autocross honors. But while resolute push is the order of the day as corners get tighter, being a rear-driver with a 54/46-percent weight bias does help overall stability and mitigate understeer a tad. Its trailing throttle/brake behavior also is fairly benign. While uneven road surfaces tend to evoke a bit of lope, under normal cruising conditions, the Previa S/C delivers a comfortable ride while striking a good balance between compliance and control.

Unlike the base DX, which continues to use vented disc/drum brakes, all LE models have standard four-wheel vented discs for '94. Our S/C also had the optional ABS, which can be ordered on any Previa. Fitted with these primo binders, it stopped from 60 mph in an impressive 137 feet.

A reasonably sharp eye is required to pick out the subtle exterior changes on the '94 Previa. A restyled front bumper and spoiler, new aero headlamps, revised grille inlet—redone solely to accommodate the increased breathing needs of the S/C engine—plus a handful of new paint colors are all that differentiate it from last year's model.

Cosmetic and functional tweaks are a bit more obvious—and plentiful—inside the Previa's passenger compartment. True luxo fiends can bask in the splendor of leather upholstery, offered as an option for the first time. But even the standard-issue fabric has been upgraded for the new year on LE models. Revised front buckets now feature adjustable headrests, and a redesigned steering wheel incorporates horn button inserts. Also on hand: a rear hatch pulldown strap, two more cupholders, and a gaggle of lesser convenience features. Those buyers concerned with safety can rest easier knowing that, along with meeting all current passenger-car safety specs—which it has since '92—the Previa adds a passenger-side airbag for '94. Toyota hasn't neglected ozone aficionados either, marking the new year by switching to CFC-free R-134a refrigerant in the air-conditioning system.

Innovations notwithstanding, this latest Previa retains all its predecessor's comfort and functionality. Outward visibility through its expansive windshield remains excellent, and the basic—and it is basic—instrumentation is highly legible. Generally first-rate ergonomics are marred only by the questionable location of the emergency brake handle to the left of the driver's seat and by



Optional captain's chairs provide better comfort than the standard second-row bench seat and swivel at the touch of a lever for easier entry/exit.

Seatbacks on the Previa's third-row split bench can be folded forward or reclined fully. In the latter position, each half also can be raised vertically against the side of the vehicle, adding even more flexibility to the spacious rear cargo area.

Among the Previa's modest list of options are handsome five-spoke, aero-look cast aluminum rims.

rather awkward adjuster levers for the armrests, which require far too much wrist-twisting to operate.

The Previa remains one of the roomiest minivans on the market today. With standard seven-passenger capacity, there's still a generous 32.5 cubic-feet of cargo space behind the third row of seats. That number rises to 157.8 when the Previa is configured in full-tote mode. Although the optional captain's chairs lack the quick-release capabilities of the standard-issue second-tier bench, they do swivel and slide fore/aft for easier access/egress. And either half of the third-row split-bench can be folded flat against the side wall and secured with a retaining strap to add even more flexibility to the Previa's huge cargo bay.

Perhaps the best way to characterize the new Previa LE S/C is as a grand-touring minivan. Competent handling is matched with impressive acceleration, braking, and for now, class-leading fuel economy. This goodness doesn't come cheap. The base price on a Previa LE S/C is estimated at $27,800, about $2000 more than a naturally aspirated LE. Our heavily optioned example bumped that total to over $34,400 and a full-boat All-Trac with leather upholstery is destined to push the $40K mark. But Toyota is aiming the S/C line at the upper strata of the minivan market. Those discriminating buyers not put off by its formidable pricetag are sure to enjoy many pleasant miles in return for the initial cost premium. MT

SECOND OPINION

The Previa has been one of my favorite vans since its introduction—with one qualification: I'm not a big fan of its weak-willed powertrain. In undemanding flatland driving, I get along with the Previa just fine. There, the excellent build quality and wonderful utility keep me more than satisfied. But with a heavy load or at high altitude (or heaven forbid, both), there's just no getting around the fact that the Previa is operating on impulse power when other minivans have fully functional warp drive.

The S/C version of the Previa improves the power situation substantially, but at the cost of added powertrain noise and resonance. Production versions might have less of this busy-ness than the prototype we drove, but regardless, it's safe to say that the Previa S/C still makes more engine commotion than the best V-6-powered vans. The supercharger is a step in the right direction, but the journey won't be over until this vehicle has a real six-cylinder engine. —*Jeff Karr*

TECH DATA

Toyota Previa LE S/C

GENERAL

Make and model	Toyota Previa LE S/C
Manufacturer/importer	Toyota Motor Sales, U.S.A. Inc., Torrance, Calif.
Location of final assembly plant	Kanya, Japan
EPA size class	Passenger van
Body style	Minivan
Drivetrain layout	Mid-engine, rear drive
Airbag	Dual
Base price	$27,800 (est.)
Price as tested	$34,415 (est.)
Options included	Power package, $745; Dual moonroofs, $1550; cast alloy wheels, $420; ABS, $950; capt. chairs, $790; Prem. sound system w/cassette, CD, $1275; floormats, $115; priv. glass, $385
Ancillary charges	Destination, $385
Typical market competition	Chevrolet Lumina Minivan, Dodge Caravan, Ford Windstar

DIMENSIONS

Wheelbase, in./mm	112.8/2865
Track, f/r, in./mm	61.6/61.2/1565/1541
Length, in./mm	187.0/4750
Width, in./mm	70.0/1778
Height, in./mm	68.7/1745
Ground clearance, in./mm	7.3/185
Manufacturer's base curb weight, lb	3890
Weight distribution, f/r, %	54/46
Cargo capacity, cu ft, min./max.	32.5/157.8
Fuel capacity, gal	19.8
Weight/power ratio, lb/hp	24.2

ENGINE

Type	Inline-4, liquid cooled, cast iron block, cast aluminum head
Bore x stroke, in./mm	3.74 x 3.39/95.0 x 86.1
Displacement, ci/cc	148.8/2438
Compression ratio	9.0:1
Valve gear	DOHC, 4 valves/cylinder
Fuel/induction system	Multipoint fuel injection, supercharged/intercooled
Horsepower hp @ rpm, SAE net	161 @ 5000
Torque lb-ft @ rpm, SAE net	201 @ 3600
Horsepower/liter	66.0
Redline, rpm	5800
Recommended fuel	Premium unleaded

DRIVELINE

Transmission type	4-speed automatic
Gear ratios	
(1st)	2.80:1
(2nd)	1.53:1
(3rd)	1.00:1
(4th)	0.71:1
Axle ratio	3.73:1
Final-drive ratio	2.63:1
Engine rpm, 60 mph in top gear	2175

CHASSIS

Suspension	
Front	Independent, MacPherson struts, lower control arms, coil springs, anti-roll bar
Rear	Live axle, four links, coil springs
Steering	
Type	Rack and pinion, power assist
Ratio	18.6:1
Turns, lock to lock	3.5
Turning circle	37.4
Brakes	
Front, type/dia., in.	Vented disc/10.9
Rear, type/dia., in.	Vented disc/11.4
Anti-lock	Optional
Wheels and tires	
Wheel size, in.	16 x 6.0
Wheel type/material	Aluminum alloy
Tire size	P215/65HR15
Tire mfr. and model	Bridgestone Turanza EL40

INSTRUMENTATION

Instruments	Speedo; fuel; water temp.; digital clock
Warning lamps	Battery; oil pressure; check engine; oil change; door ajar; seatbelts; ABS

PERFORMANCE AND TEST DATA

Acceleration, sec	
0-30 mph	3.4
0-40 mph	5.1
0-50 mph	7.5
0-60 mph	10.2
0-70 mph	14.1
Standing quarter mile	
sec @ mph	17.6 @ 78.3
Braking, ft	
30-0 mph	36
60-0 mph	137
Handling	
Lateral acceleration, g	0.70
Speed through 600-ft slalom, mph	58.0
Speedometer error, mph	
Indicated / Actual	
30 / 29	
40 / 38	
50 / 48	
60 / 57	
Interior noise, dB	
Idling in neutral	45
Steady 60 mph in top gear	66

FUEL ECONOMY

EPA, city/hwy., mpg	18/23
Est. range, city/hwy., miles	356/455

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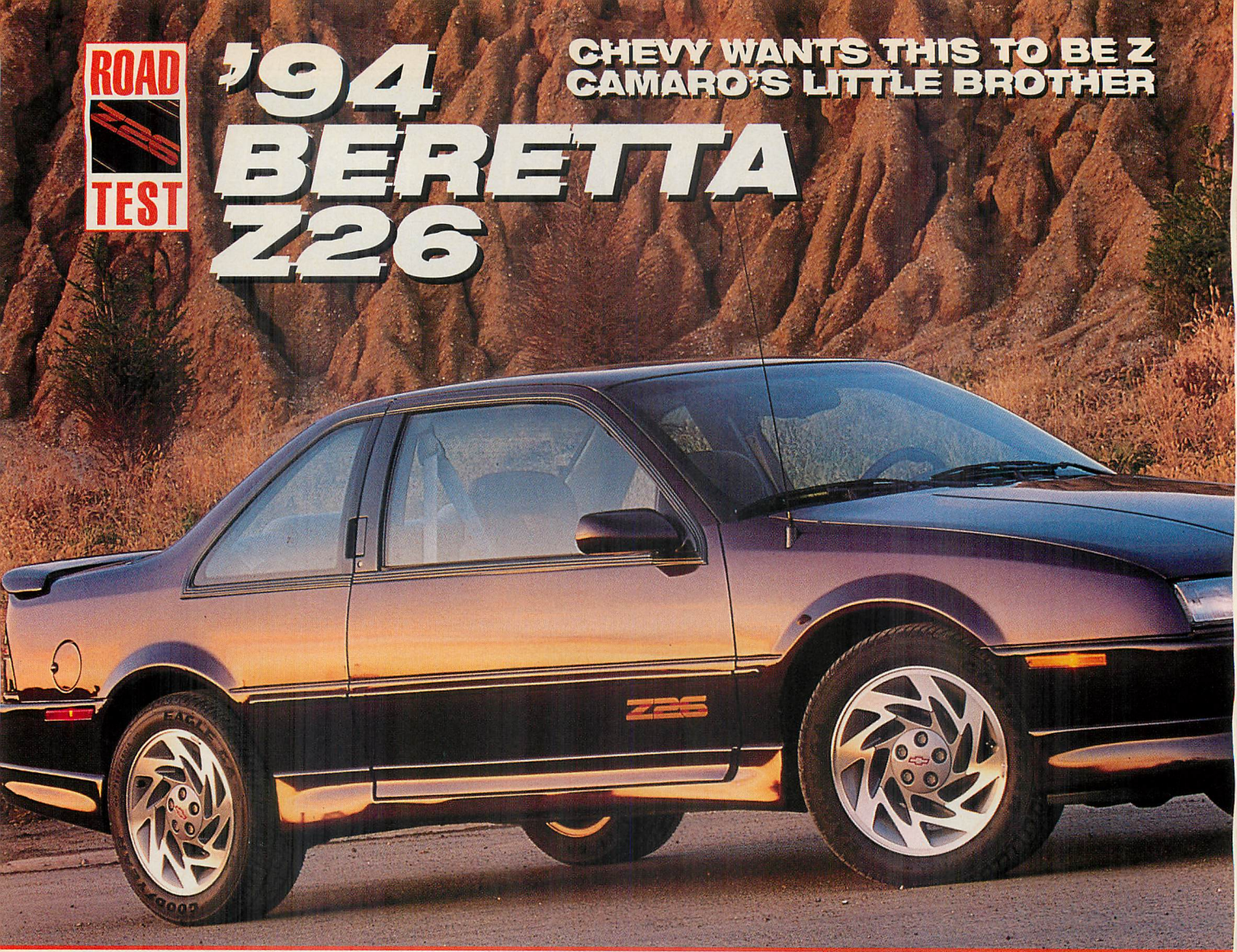
ROAD TEST

'94 BERETTA Z26

CHEVY WANTS THIS TO BE Z CAMARO'S LITTLE BROTHER



by Jeff Karr

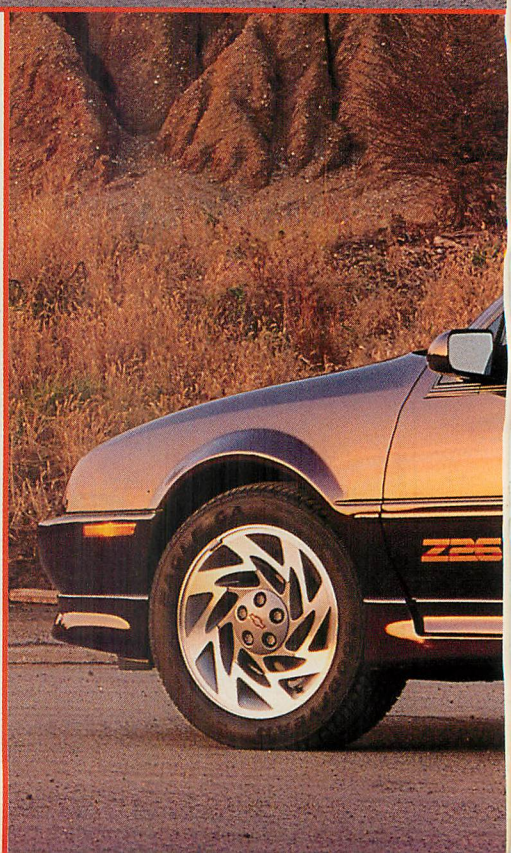
PHOTOGRAPHY BY JIM FRENAK

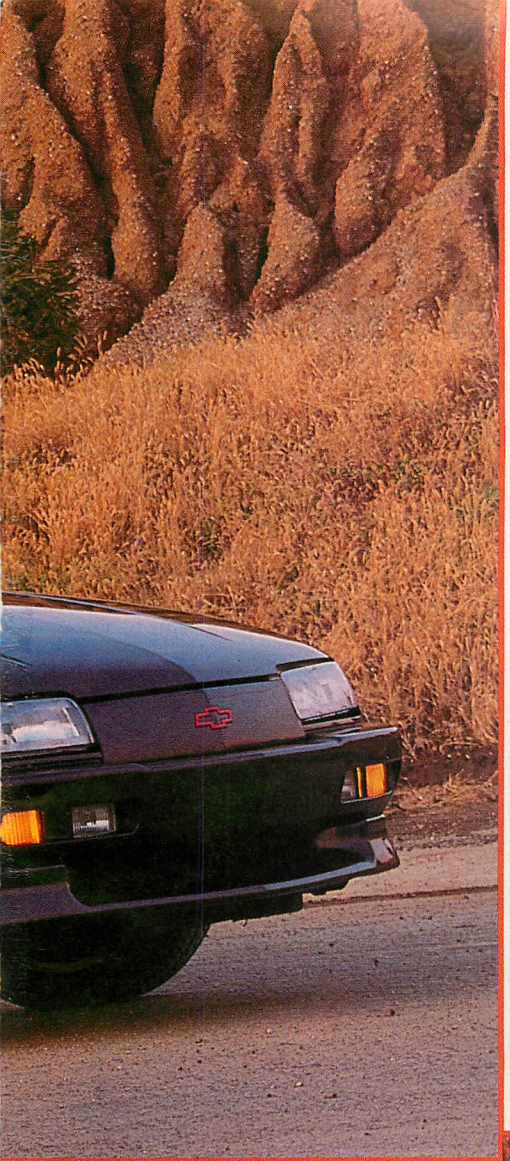
Successful sporty two-doors express a certain enthusiastic attitude. Such automobiles seem to exhibit a jaunty set of the jaw that telegraphs delight even at curbside. Our black-rose metallic Beretta Z26, successor to the GTZ, is such a car. Of course, a car whose name is a near-duplicate of a powerful handgun should always get attention. That's the good news. The bad news is that Chevrolet already offers a six-shot vehicle with more of this central appeal at a lower price, with performance-enhancing rear-wheel drive and newer styling. It's called the Camaro.

Nose to tail, the Beretta is a commendably sleek and attractive way to commute to work, or anywhere else for that matter. Our tester is powered by Chevy's optional 3.1-liter 12-valve pushrod V-6, a technically freshened 160-horsepower unit that sacrifices 10 ponies to the gods of smoothness in exchange for a more vibration-free drive than that provided by the car's standard twin-cam Quad 4 engine of 170 horsepower. All told, this is a better trade than you'll ever get from your stockbroker.

Chevy doesn't offer the otherwise-standard five-speed manual transmission for this model, though the V-6 package comes with an electronically controlled four-speed automatic transmission located in a full-length floor console.

The driving experience is first-rate under most conditions. The Z's six is an eager performer that happily responds to commands from the throttle and transmission. Keep the automatic out of fourth-gear overdrive for a slightly crisper combat downshift.





Booting it on a 30-mph roll kicks the engine into fast and credible high-rpm growl. Those 160 ponies provide ample acceleration on the street and highway, but missing is a corresponding feeling of high excitement. The powertrain is efficient and adequately sporty, but restrained by the automatic. Thrill seekers should choose the hot Quad 4 mated to the manual shifter. They'll pay less and have more fun.

Configured like our test car, the Z26 is more boulevardier than bully. Track testing confirmed our stoplight theories. The Z26 is a 9.0-second sprinter to 60, and the quarter mile topped out at 82.3 mph in 16.8 seconds. A stick would definitely improve the acceleration times, but if we had a manual, it would be attached to the Quad 4 engine, and then we'd be griping about noise and vibration. We'll take our trade-off the way it came. We'd like to see the torque steer addressed, however, eliminating a woozy lurch to port evident during full-throttle first-to-second upshifts. Most drivers will detect the phenomenon only when they charge down an on-ramp.

As a normally laid-back street machine, the Z26 fits well into the driving habits of most people who buy one. The baby Z will shed some of its coy veneer when asked, and it'll enjoy the exercise almost as much as those hormonal stars on ESPN bodybuilding shows. Road holding, via the optional FE3 suspension setup and standard 16-inch Goodyear Eagle GA footwear, is definitively first-rate. Regrettably, the power-assisted rack-and-pinion steering is linear but dull and nearly devoid of road feel.

The Z26's high-stick FE3 suspension tuning is cross-pollinated from the race-bred GTZ predecessor, and the muscle fibers show in more ways than one. The car is reassuringly stable when tossed around in sizzling-hot transitions. Safe and sane understeer sets the ultimate cornering limit during sharp maneuvering. The price for this tight and mannerly performance is poor ride quality, which on lesser road surfaces tends to be harsh and unforgiving (another legacy of the old GTZ). The hostility would be in context and more acceptable in a stick-shifted Quad 4 rude boy, but here it grows tiresome.

Effort has been made to improve the Beretta's front suspension road isolation. The horizontal bushings at the rear of the '93 model's front control arms were repositioned vertically for '94. This bushing carries primarily fore and aft suspension loads. Its new vertical orientation allows greater rearward movement for the control arm, as well as lessened resistance to torsional movement. Though this is a step in the right direction, the ride is still too rough for this model's light-performance lifestyle, to the point of causing the

optional CD player to skip nervously on certain road surfaces.

Chevrolet has paid more attention to interior systems of late, and this is never better demonstrated than in the front bucket seats. We've taken frequent and strident exception to the support and comfort of Chevy seats in the past, but the Z26's seats are a wonderful improvement of the breed, and we're thankful. Thick with padding and supportive for street and racetrack, they finally are perches on which you can make long-distance trips without cursing. The rear seat area has been similarly improved.

We found that some of the interior's people factors need a hard look in the next redesign. Appointments are as muddled as Congressional thinking, and we can cite several areas for improvement. A standard driver-only airbag resides in the center hub of the steering wheel on a tilt column, but many cars in the segment now pony up dual bags. The door-mounted three-point belts are no longer a worrisome inch or so off the left hip, but they still can't be cinched as tightly as desired in a performance coupe.

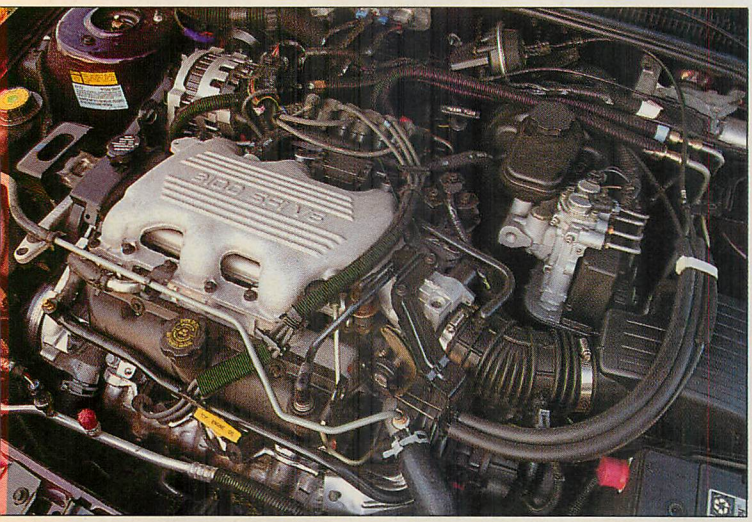
The climate control offers a versatile number of settings for air direction and temperature, but the controls are located so low on the dash that changes are hard to make when the automatic shifter is lodged in the park position. The "cupholder" in the console is little more than a place for spare Legos. The additional cupholders in the passenger dash are more functional.

The pop of the power trunk opener has the disconcerting sound of a rifle shot. Once the decklid is opened, the liftover is about as high as a basketball rim, and it's one of the principal indicators of old-think. (Of course, it isn't actually that high, but it's going to feel like it when you're hoisting that 40-kilo Samsonite into the hold.)

Granted, our beefs tend to be a passel of little things, and despite how much we like the car in general, there's a heck of a lot of circumstantial evidence to convict the Z26 as a candidate long overdue for a makeover. We know this vehicle can't be all things to all people, but it makes a weak statement in a price/performance debate. The base price for a V-6 Camaro offering the same horsepower as the high-performance Beretta is $13,399; the base

For a car with an automatic transmission, the baby Z still clocked a decent 9-second-flat 0-60-mph time. Handling is by far the car's strongest skill, producing a stable ride even in the hot cornering of the slalom test. We like the car on the street, too, though a stick would improve performance greatly.

Improved manufacturing of Chevy's 3.1-liter engine wrought more horsepower and better fuel economy from the familiar six-cylinder. The powerplant is optional in the Beretta Z26 and arrives with the sole transmission available, a four-speed automatic.



Send your cards and letters to Jim Perkins—Chevy finally did something about the old seats that offered poor support and comfort characteristics. A driver-side airbag is standard; no passenger device is offered yet. The climate controls could be higher on the dash for improved operation.

sticker for a Z26 is $15,310.

It takes another $2000 to complete the performance transformation, including, among a few smaller items, $525 for the smoother but lower-performance engine/transmission powerpack, $372 for the FE3 suspension tuning and Goodyears, and an astonishing $463 for floormats, tilt column, power trunk opener, and cruise control. This is the '90s—General Motors bigwigs struggling to contain costs can zero in on the Z26 as their poster child.

Is the Beretta worth the money? To a slim slice of the buying public, it probably is. The Beretta is a likeable alternative to the overtly predatory Camaro. But that pleasant demeanor comes at a steep premium—especially now that the new-age Camaro has become more civilized. MT

SECOND OPINION

This is the seventh season for Chevy's Beretta, which is something of a class record. While the Japanese chase design trends, Chevy has invested its Beretta budget under the skin—improving powertrains and modernizing the interior.

Except for lingering torque steer and a stiff-legged way with rough roads, the new Z26 is a pleasant piece of machinery. The redesigned 3.1-liter V-6 is smooth, quiet, and efficient.

Unfortunately, pleasantness isn't the currency in this class. Sporty 2+2s should snap and crackle when the throttle is goosed and beg for the long, winding way home. They should twist necks and incite envy at every turn.

The base Camaro does all of that for less than what a Z26 costs. That forces the Beretta into an awkward role: the bridesmaid of Chevy's lineup.

—Don Sherman

TECH DATA

Chevrolet Beretta Z26

GENERAL

Make and model	Chevrolet Beretta Z26
Manufacturer	Chevrolet Motor Div., General Motors Corporation, Detroit, Mich.
Location of final assembly plant	Wilmington, Delaware
EPA size class	Compact
Body style	2-door, 5-passenger
Drivetrain layout	Front engine, front drive
Airbag	Driver's side
Base price	$15,310
Price as tested	$17,371
Options included	Power windows, $275; electric rear window defogger, $170; 3.1-L V-6 (incl. 4-spd. auto.), $525; FE3 suspension, 205/55VR16 tires, $372; AM/FM/CD radio w/digital clock & extended-range sound system, $256; Z26 Pref. Equip. Group 1 (incl. color-keyed floormats, tilt steering, power trunk opener, and cruise control.), $485
Ancillary charges	Destination, $485
Typical market competition	Chevrolet Camaro, Pontiac Grand Am, Ford Probe

DIMENSIONS

Wheelbase, in./mm	103.4/2626
Track, f/r, in./mm	55.6/55.1/1412/1400
Length, in./mm	183.4/4658
Width, in./mm	68.2/1732
Height, in./mm	56.2/1427
Ground clearance, in./mm	5.9/150
Manufacturer's base curb weight, lb	2960
Weight distribution, f/r, %	66/34
Cargo capacity, cu ft	13.4
Fuel capacity, gal	15.6
Weight/power ratio, lb/hp	18.5

ENGINE

Type	60° V-6, liquid cooled, cast iron block, aluminum heads
Bore x stroke, in./mm	3.50 x 3.31/ 88.9 x 84.1
Displacement, ci/cc	191/3130
Compression ratio	9.6:1
Valve gear	OHV, 2 valves/cylinder
Fuel/induction system	Multipoint sequential EFI
Horsepower hp @ rpm, SAE net	160 @ 5200
Torque lb-ft @ rpm, SAE net	185 @ 4000
Horsepower/liter	51.1
Redline, rpm	6000
Recommended fuel	Unleaded regular

DRIVELINE

Transmission type	4-speed auto.
Gear ratios	
(1st)	2.92:1
(2nd)	1.57:1
(3rd)	1.00:1
(4th)	0.71:1
Axle ratio	2.97:1
Final-drive ratio	2.11:1
Engine rpm, 60 mph in top gear	1600

CHASSIS

Suspension	
Front	MacPherson struts, coil springs, lower control arms, anti-roll bar
Rear	Twist beam axle, trailing arms, coil springs, anti-roll bar
Steering	
Type	Rack and pinion, power assist
Ratio	14:1
Turns, lock to lock	2.5
Turning circle	37.8
Brakes	
Front, type/dia., in.	Vented disc/10.2
Rear, type/dia., in.	Solid drum/7.9
Anti-lock	Standard
Wheels and tires	
Wheel size, in.	16 x 8.0
Wheel type/material	Cast aluminum
Tire size	205/55VR16
Tire mfr. and model	Goodyear Eagle GA

INSTRUMENTATION

Instruments	120-mph speedo; 8000-rpm tach; oil pressure; fuel; coolant temp; volts
Warning lamps	Belts; brake; airbag; temp; service engine; ABS; oil; door ajar

PERFORMANCE AND TEST DATA

Acceleration, sec	
0-30 mph	3.0
0-40 mph	4.5
0-50 mph	6.5
0-60 mph	9.0
0-70 mph	12.3
0-80 mph	21.6
Standing quarter mile	
sec @ mph	16.8 @ 82.3
Braking, ft	
30-0 mph	33
60-0 mph	130
Handling	
Speed through 600-ft slalom, mph	65.9
Speedometer error, mph	
Indicated / Actual	
30	29
40	39
50	49
60	59
Interior noise, dB	
Idling in neutral	48
Steady 60 mph in top gear	69

FUEL ECONOMY

EPA, city/hwy., mpg	20/28
Est. range, city/hwy., miles	312/436.8

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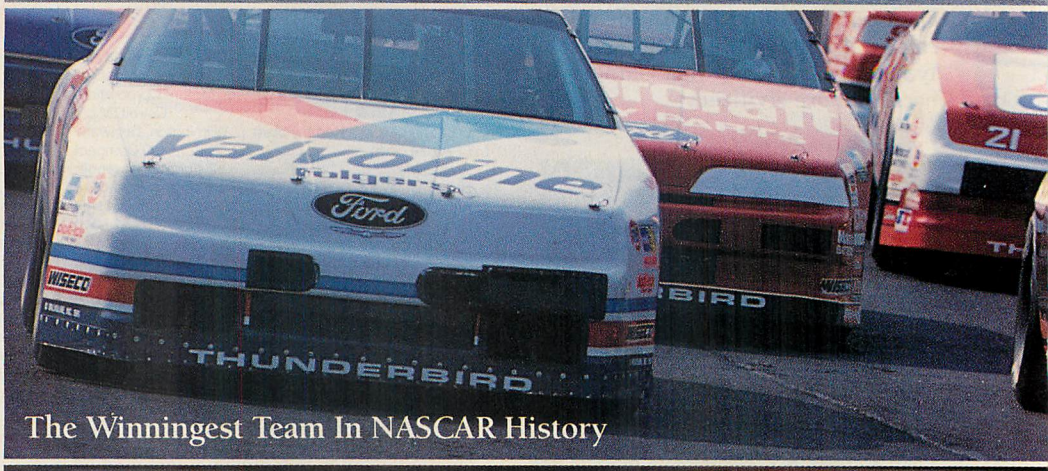
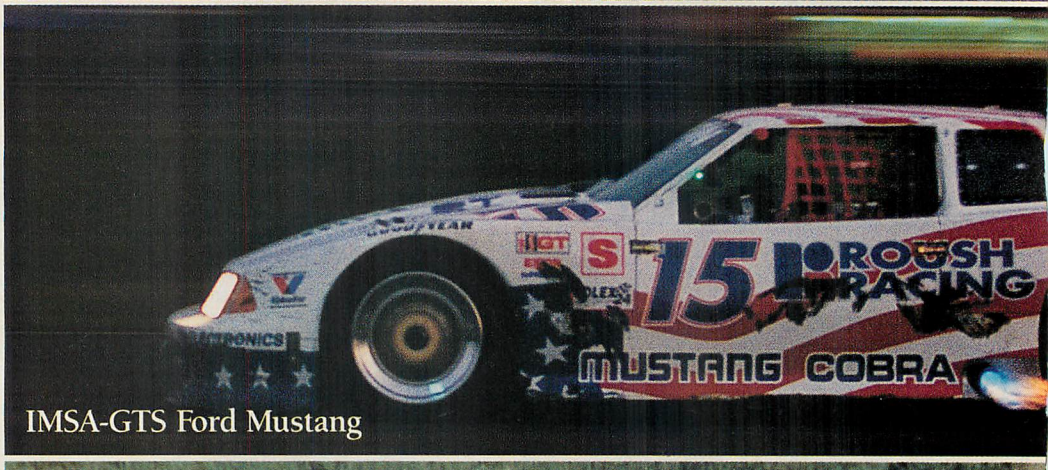
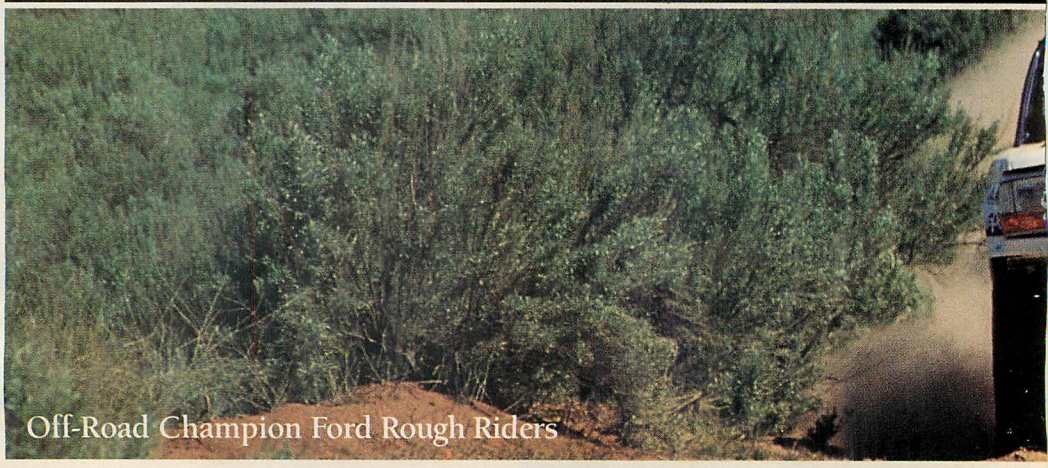
IndyCar Champion Ford-Cosworth Indy Car

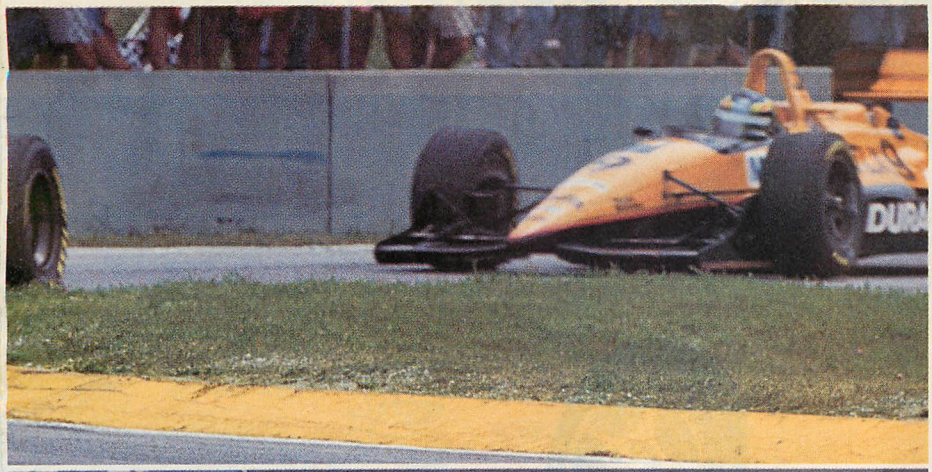


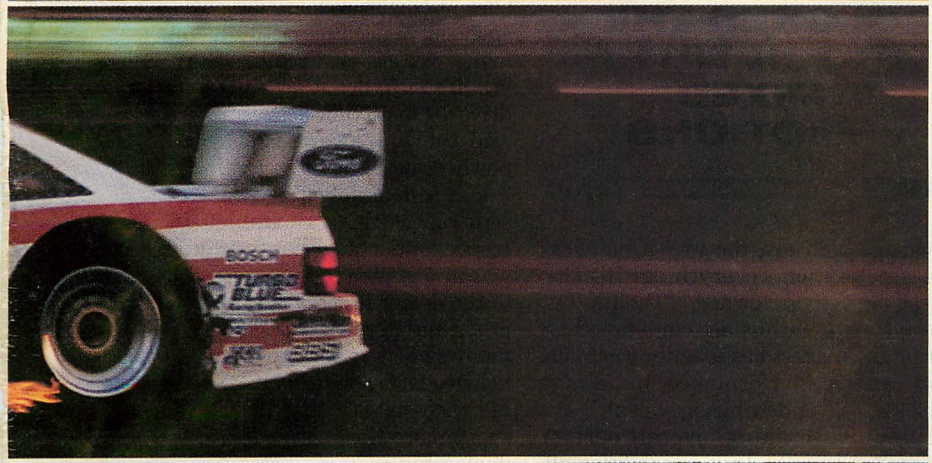
The Winningest Team In NASCAR History



IMSA-GTS Ford Mustang


Off-Road Champion Ford Rough Riders





Memories of things passed. And on the racetrack in 1993, Ford passed just about everything. The Ford-Cosworth Indy Car tallied

six wins and a Driver's Championship. The NASCAR Thunderbirds' ten season wins capped off another

AND SOUVENIRS

great year for Ford, the winningest company in NASCAR history. The IMSA-GTS Mustang delivered Ford its tenth straight Rolex 24 at Daytona.

And Ford off-road trucks took six class trophies, plus the big and small truck championships. All in all, we're glad we brought the camera. And, of course, that extra suitcase.

Ford

HAVE YOU DRIVEN A FORD LATELY?

LONG-TERM WRAPUP

BY B.J. HOFFMAN

'93 MAZDA RX-7

THE CURRENT SPORTS CAR CHAMP CLOSES THE BOOK WITH MIXED EMOTIONS

PHOTOGRAPHY BY SCOTT KILLEEN

In this world of copycat coupes and vanilla sedans, Mazda offers two trendsetting vehicles that rank high in performance, originality, and fun. One is the popular Miata, a convertible that calls to the emotions of those who love old British roadsters. The second is the RX-7, a back-to-basics sports car that yields instant gratification for the enthusiast. After our first drive in an RX-7 in March 1992, we immediately ordered one for our long-term fleet.

The RX-7 is "the car I've waited for all my life!" wrote one owner. In our Feb. '93 issue, we stated, "The Mazda dramatically advances the level of performance in its class." One thing's agreed: The RX-7 set a new sports-car standard when it hit the market.

Our owner's survey reported almost three million miles driven by respondents, with an average of 10,558. As expected, performance was the primary influence and reason for purchase of the RX-7. Looks and style followed closely, with handling in third place. The majority of owners in our survey (63.8 percent) purchased the Touring model, like our long-termer, followed by those who opted for the more-performance-oriented R-1 at 23.4 percent, and 12.8 who ordered the base model.

In the acceleration opinion, a unanimous 100 percent said it was excellent or good. We received many wonderful comments praising the RX-7's performance. "I was a Corvette owner for years; however, it's no comparison to my RX-7. I love it—the way it feels roaring down the highway, the way it handles, the acceleration...everything! It's the finest car I've ever owned." "The RX-7 is the ultimate enthusiast car—no other car on the market has a better combination of style, performance, handling, price, and sheer driving enjoyment."

Handling, braking, overall performance, and fun-to-drive capabilities all scored 98 percent or higher in the excellent/good columns. "The RX-7 is an excellent example of a no-compromise approach to auto design. It's a joy to drive and is truly a sports car, not a GT freeway missile. The RX-7 is most at home on a twisty mountain road where the turbos, handling, brakes, and gearbox can best be used." Our logbook comments agreed. "Cash in my Corvette coupons!" "This thing is high-performance heaven."

A low 70.5-percent excellent/good score was tallied for overall comfort. There's no question the interior is a bit cramped and the ride is stiff, especially in the R-1. But as some wrote in: "I don't mind that the ride's a bit rough; if I wanted a waterbed, I'd have bought a Lincoln!" "I'm 6 feet 2 inches and 200 pounds—it's a tight fit, but worth it!" One Michigan automotive engineer responded: "I disagree with the auto magazine writers concerning ride quality; yes, it's stiff, but it does the job right! I drive 10 to 15 different vehicles a week, and there are cars a lot worse with nowhere near the fun potential."

Fun is definitely a key word when describing the RX-7. Unfortunately, many respondents noted that their driving fun was interrupted too many times for trips to the dealer for servicing of a variety of problems. Responses to our survey show many owners experienced major and minor headaches with their RX-7s, leading many to suggest that Mazda should've spent more time on quality control and dealership training before introducing the new model.

Just over 40 percent reported some type of mechanical problem. Faulty engine computer units topped the list at 21.2 percent, followed by turbo mishaps, stalling, air conditioning, oil leaks, and battery troubles. Others reported miscellaneous afflictions with interior trim pieces falling off, squeaks and rattles, loose door handles, and, most prolific, dents, dings, chips, and generally poor paint quality. "The car dings just looking at it!" "My car has been in the shop at least 10 times. Every time I get it back, something else goes wrong!" "Too bad Mazda missed so badly in the workmanship department. Squeaks, rattles, poor

exterior paint, and chipping interiors are things that even GM doesn't miss." These opinions are reflected in the relatively low 76.5 percent excellent/good rating in the overall quality and workmanship opinion.

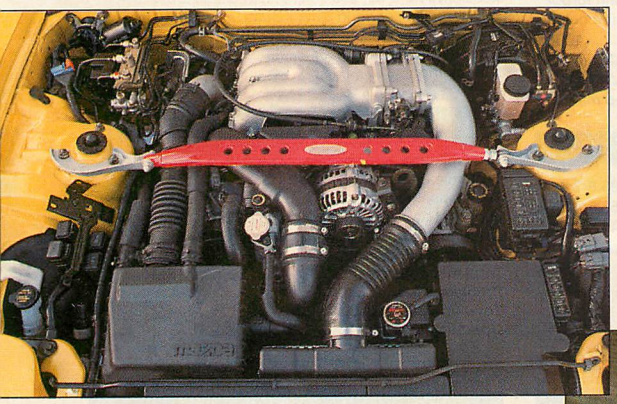
Our service of the RX-7 long-termer included two oil changes before we experienced any mechanical trouble. The first logbook comment regarded a noticeable front-suspension chirp; its source was never located. Another trip to the dealer was made after the RX-7 lost all turbo boost. The fix was minor: A hose had worked itself loose. Once reattached, everything was fine. Around 7000 miles, we tightened the driver-side door handle fasteners, which had come loose. Daniel Charles Ross stole the RX-7 from us for a trip home to Detroit, and on the way also noted the suspension chirp, along with the CD player's tendency to react severely to minor road bumps, either by skipping or shutting down altogether. Our car also experienced dings and chips in the paint finish.

The rest of its stay with *Motor Trend* was spent in Detroit. During the winter, driving time in it was sporadic; the RX-7's inclement-weather abilities aren't exactly stellar. One respondent emphasized, "Don't ever drive it in the snow. It definitely doesn't like it!"

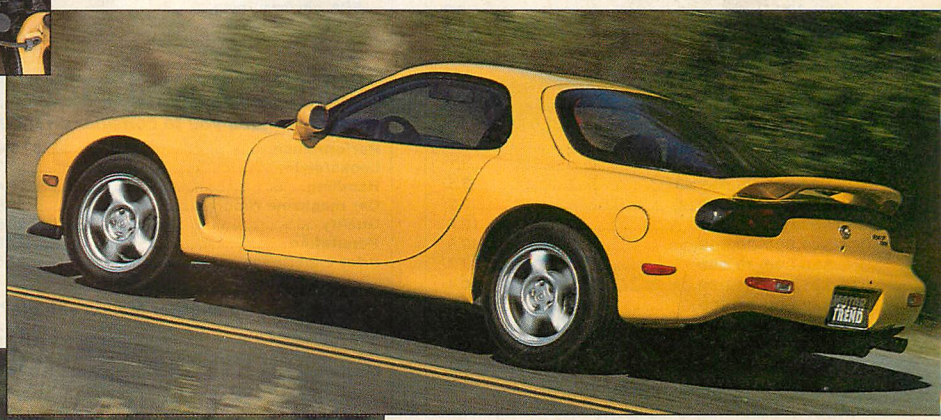
Servicing the RX-7 wasn't a pleasant experience, according to the majority of respondents, marking only 34.7 percent excellent and 35.5 percent good. Many felt that, for the money they'd spent, they deserved to be treated a little better. Others whined that the service technicians really didn't know the car that well and that parts took too long to arrive. Still others complained that they had to wait days before they could get an appointment, and the dealers weren't flexible when it came to owners' schedules. Dealer attitudes were also of great concern to the owners: "I've had to bring the car back several times for the same problem, and when I tried to discuss this with the service attendant, he said he was doing me a great favor; that he was going beyond his duties!" Others, though, had no problems with their service departments. "I'm usually treated like I'm someone special," wrote one owner. Another replied, "I feel that the dealership is still as interested in my RX-7 as it was the day it was delivered."

Although still below our survey average, dealer sales practices scored slightly better, at 74.6 percent excellent/good. "When I purchased the vehicle, the salesman never mentioned that it already had 500 miles on the odometer." "Once I bought it, they don't want to know me." One lawyer/owner was so angry, he "ended up in litigation over the dealer's deceptive trade practices." Those with pleasant purchase experiences wrote: "They go out of their way to give you fair pricing. They make you feel that your business and future dealings with them are of the utmost importance." "This was the only dealer out of four to find an automatic to test drive. He really worked to get the sale."

Despite the negative remarks, 77.3 percent said they'd recommend the RX-7 to others, and 74.3 percent would purchase another Mazda product. Mazda is aware of all the complaints and problems and, for '94, has fixed almost



Twin turbos, 255 horsepower, and only 2862 pounds produce awe-inspiring motion. The Touring model runs 0-60 mph in 5.4 seconds, the R-1 in 5.3. Some owners wanted at least 300 horsepower to stay competitive with the Chevy Corvette and Mitsubishi 3000GT VR-4.

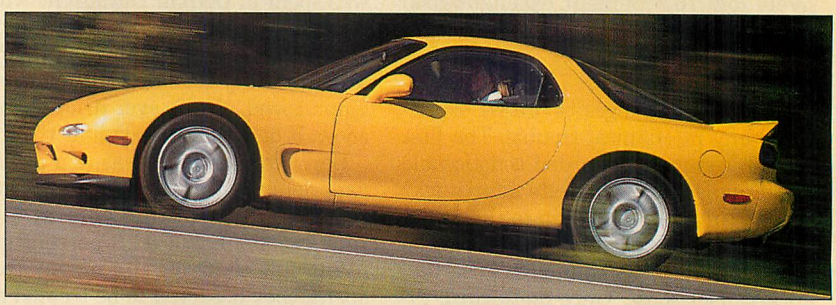


Not a lot of space—but who cares? Everything you need is here: a steering wheel with airbag, five-speed transmission, and CD-equipped stereo. Seats are snug to keep you in place while zipping through mountain passes and backroad twisties.

everything noted in our survey. The Hi-Reflex paint used on earlier models has been replaced with a more durable finish to reduce chips and dings. For '94 there's a passenger-side airbag, cleaned-up instrument panel graphics, and a thicker coating on the center console to better resist peeling and chipping. Electronic control units on earlier models that suffered stalling problems can be replaced at the dealership. And for those with the base model who wanted more goodies, a new preferred-equipment-group option package that includes leather seats, a power sunroof, and a cargo area cover is available.

Even with its various quirks and problems, owners still enjoyed driving it. One enthusiast from Illinois spoke for the many performance-minded purchasers when he wrote, "If I had to make the decision to buy another Mazda RX-7, I'd do it three more times!" MT

TECH DATA



Mazda RX-7

PRICE

Base price	$31,300
Price as tested	$34,790

GENERAL/POWERTRAIN

Body style	2-door, 2-passenger
Vehicle configuration	Front engine, rear drive
Airbag	Driver side
Engine configuration	Twin rotor, twin turbo/ intercooled
Engine displacement, cc	1308
Horsepower, hp @ rpm, SAE net	255/6500
Torque, lb-ft @ rpm, SAE net	217/5000
Transmission	5-speed manual

DIMENSIONS

Wheelbase, in./mm	95.5/2425
Length, in./mm	168.5/4280
Height, in./mm	48.4/1230
Ground clearance, in./mm	4.5/115
Curb weight, lb	2862
Fuel capacity, gal	20.0
Fuel economy, EPA, city/hwy., mpg	17/25

CHASSIS

Suspension, f/r	Independent/independent
Steering	Rack and pinion, power assist
Brakes, f/r	Vented discs/vented discs/ABS
Wheels	16 x 8.0, alloy
Tires	225/50VR16

PERFORMANCE

Acceleration, 0-60, sec	5.4
Quarter mile, sec/mph	14.0/102.3
Braking, 60-0, ft	115
Lateral acceleration, g	0.94
Slalom, mph	67.1

MAINTENANCE

Total mileage	15,223
Test mileage	14,722
Fuel consumed, gal	1077.6
Fuel cost	$1401.27
Average mpg	13.7
Additional oil cost	None
Total maintenance	$116.20
Problem areas	Door handle, rattles
Total operating cost	$1517.47
Operating cost/mile	10.3¢

VITAL STATISTICS

Principal driver

Male	**84.2%**
Female	15.1

Age of principal driver

Under 20	1.1
20-24	5.1
25-29	8.7
30-34	14.9
35-39	**22.9**
40-44	15.3
45-49	15.6
50-54	7.3
55-59	3.3
60-64	3.6
65 & over	2.2

Sales price

Average	$30,563
Range	$22,000-$38,000
Under $25,000	2.7%
$25,000-25,999	3.1
$26,000-26,999	3.5
$27,000-27,999	7.3
$28,000-28,999	12.7
$29,000-29,999	10.8
$30,000-30,999	**15.4**
$31,000-31,999	10.4
$32,000-32,999	11.6
$33,000-33,999	4.6
$34,000-34,999	6.6
$35,000-35,999	6.6
$36,000 & over	4.6

Mileage

Total vehicle miles	2,987,909
Average miles/vehicle	10,558
Average mpg, city/highway	18.1

PURCHASE CONSIDERATIONS

What influenced you to consider an RX-7?

Performance	89.8%
Looks/style	87.7
Handling	75.4
Car magazine reports	55.6
Quality	29.6
Reputation	27.8
Prior experience	27.5

Would you buy another Mazda vehicle?

Yes	74.3
No	6.7
Maybe	19.0

Would you recommend this car to others?

Yes	77.3
No	6.4
Maybe	16.3

STRENGTHS/WEAKNESSES

Mechanical problems

Yes	41.5%
No	58.5

Types of mechanical problems

Engine computer	21.2
Turbo injector	13.1
Stalling	11.1
Air conditioning	11.1
Oil leak	6.1
Battery	6.1

Specific complaints

Paint/finish	15.4
Car noises/rattles	14.6
Ride	9.9
No complaints	8.3
Quality	8.3
Room	7.9
Comfort	6.7
Handling in snow/wet	5.9

Specific likes

Style	60.2
Handling	49.2
Power	33.1
Braking	8.3
Stereo	4.9

What changes would you like?

Quality	14.8
Paint/finish	12.0
More power	11.2
Less car noise	8.0
Workmanship	6.8
Ride	6.4
No changes needed	6.4
More storage areas	5.6

PERFORMANCE/CREATURE COMFORTS

	Excellent	Good	Average	Fair	Poor
Performance rating	**83.1%**	15.8%	0.7%	0.4%	0%
Fun to drive	**93.0**	5.6	0.7	0	0.7
Acceleration	**94.0**	6.0	0	0	0
Braking	**87.7**	10.9	0.7	0.4	0.4
Handling	**90.5**	8.8	0.4	0.4	0
Overall comfort	20.1	**50.4**	16.2	9.9	3.5
Passenger rear-seat comfort	N/A	N/A	N/A	N/A	N/A
Overall quality	28.8	**47.7**	12.8	5.3	5.3

DEALER RATINGS

	Excellent	Good	Average	Fair	Poor
Sales practices	32.6%	**42.0%**	16.7%	4.0%	4.7%
Service practices	34.7	**35.5**	16.8	6.5	6.5

LONG-TERM UPDATE

BY B.J. HOFFMAN

Base price $37,500	Fuel cost $665.72	Previous maintenance None
Price as tested $42,213	Average mpg 18.9	Problem areas None
Total mileage 10,062	Additional oil/cost 1 qt/$2.50	Total operating cost $668.22
Test mileage 9837	Routine maint. Warranty	Operating cost/mile 6.8¢
Fuel consumed 520.1 gal	Additional maint. None	

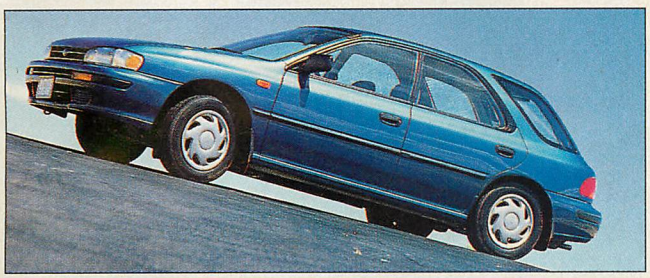
'93 LEXUS GS 300

In five months we've logged nearly 10,000 miles on our GS 300; it appears those who lament the departure of our long-term Mercedes-Benz 500SEL have found a new traveling companion in the Lexus sedan. Service at the required 1000- and 5000-mile intervals was performed at no charge, courtesy of Lexus' customer-satisfaction package. As we predicted, gas mileage has jumped since the last update; trips to Monterey, Santa Barbara, and San Francisco spawned this improvement. So far, logbook comments have been mostly positive. All 15 drivers found the Lexus comfortable, smooth, and roomy, even for the six-footers on our staff. "Handles well at all speeds and takes curves as well as—if not better than—BMWs and Mercedes'." Negative comments include its need for a bit more power, a center armrest that's too short, and poor visibility when backing up, due to the "hump" trunk design. One editor stated: "I think this is my favorite four-door in the Lexus line; it has most of the LS' amenities, but feels lighter, more nimble, and sportier."

Base price $36,890	Fuel cost $558.45	Previous maintenance None
Price as tested $41,018	Average mpg 17.2	Problem areas None
Total mileage 7519	Additional oil/cost 1 qt/$2.50	Total operating cost $585.23
Test mileage 7467	Routine maint. 20.78	Operating cost/mile 7.8¢
Fuel consumed 434.5 gal	Additional maint. Brake fluid/$3.50	

'93 LINCOLN MARK VIII

The Mark VIII has generated more logbook notations than usual in the few months we've driven it. All our drivers commented on its ample power, and many compliments were received regarding its styling. One noted: "I'd rather own this than a Cadillac Eldorado or even a Lexus SC 400, given having to pay real money for them. I could live happily with this as my only car, but I rarely carry four passengers; this *isn't* a sedan substitute." He also noted, however, that the electronic transmission is slow to engage reverse or drive when shifting from one to another, most noticeably in parallel parking situations on a busy street. A complaint logged by several drivers centered around the heavy, cumbersome doors, which tend to swing back after opening, making exits extremely difficult on hills. The door even beaned an editor who was trying to exit on an incline. Controversy still surrounds the dash design: cold and impersonal or high-tech and functional? There are camps on both sides of that discussion. A first oil change ran $20.78 at the dealer, and fuel economy rose ever so slightly.



Base price $14,899	Fuel cost $340.61	Previous maintenance None
Price as tested $15,344	Average mpg 26.2	Problem areas None
Total mileage 10,382	Additional oil/cost None	Total operating cost $425.33
Test mileage 6975	Routine maint. $84.72	Operating cost/mile 6.1¢
Fuel consumed 266.1 gal	Additional maint. None	

'93 SUBARU IMPREZA WAGON LS AWD

Our little Subaru Impreza wagon is rolling right along with another 5000 miles on the odometer. At its first service interval, in addition to the routine oil change, the clutch pedal freeplay was adjusted, which improved its abruptness on takeoff. The $84.72 bill for its first service was high (only $15 was for parts), but the dealer also inspected the brakes, rotated the tires, checked the cooling system for leaks, and evaluated wiper/washer operations. Fuel mileage has increased minutely, but is still quite good at 26 mpg for primarily around-town driving. A few drivers complained about the lack of a cassette player in a $15,000 car. Others disliked the amount of noise generated by the four-cylinder engine. Power was noted in the logbook as "zippy," and those who've used the Hill Holder feature think it's a great bonus. With winter well underway, we're going to take the Impreza up to the mountains for a romp in the snow to check out its all-wheel-drive capabilities. MT

National gas average prices courtesy of Lundberg Survey, Inc., North Hollywood, California.

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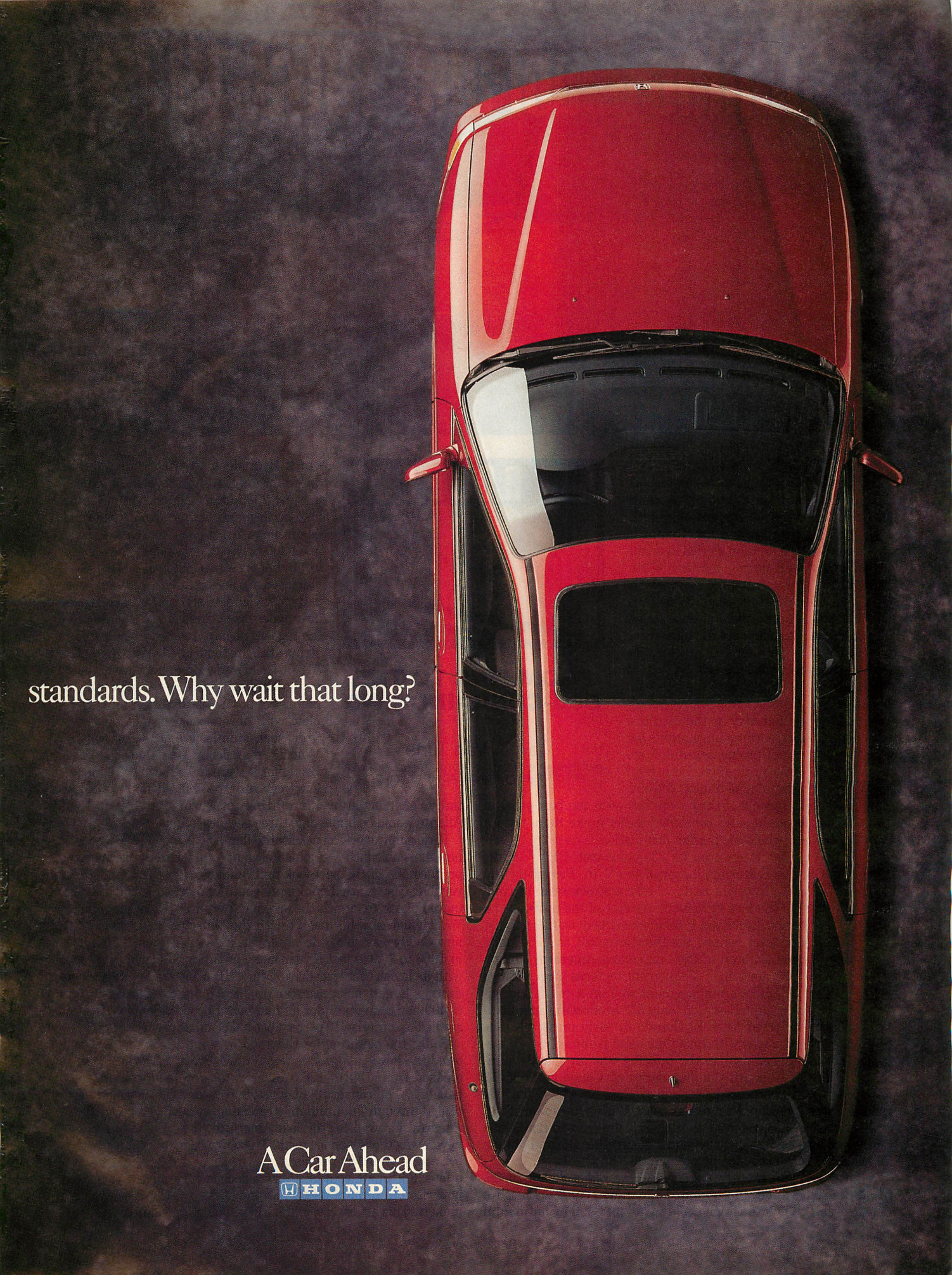
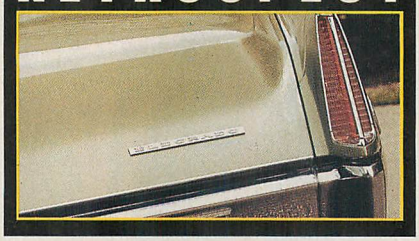
Three years from now, all cars will have to meet tougher side-impact

The New Accord


standards. Why wait that long?
A Car Ahead
HONDA

Cadillac Eldorado 1953-1973

RETROSPECT



FROM FINS TO THE 500-CUBIC-INCH V-8

by C. Van Tune

PHOTOGRAPHY FROM THE *MOTOR TREND* ARCHIVES AND COURTESY OF CADILLAC MOTOR DIVISION

Though it's hard to imagine in today's era of rebates and rent-a-car resales, there was a time when the name Cadillac conjured images of wealth, style, and luxuries beyond the dreams of most mortals. The division gloried in an enviable legacy built during the time of the Duesenberg and sparked by the magic of V-12 and V-16 roadsters, celebrity owners, and pricetags the equivalent of several new family homes. Its excellence in engineering and unrelenting quest for ever-quieter, easier-to-drive cars carried the self-proclaimed "Standard of the World" into the '50s with image intact. Cadillac was widely recognized within the industry as the cash cow of General Motors, earning huge profits per car, though annual production didn't exceed 150,000 units until 1956. Both Ford and Chrysler attempted to combat the enemy with luxury models of their own, but even the best years of Lincoln and Imperial sales *combined* didn't make more than a dent in Cadillac's wholesale market domination.

In 1949, Cadillac introduced its 331-cubic-inch OHV V-8, designed by Charles Kettering, father of the V-16. Producing 160 horsepower, this lightweight and fuel-efficient motor can be credited with starting the factory horsepower race of the postwar era. Combined with the Lockheed-P-38-inspired bodywork of stylist Harley Earl (who later penned the first Corvette), the '49 Caddy effectively became the icon of the burgeoning American Dream. With sales in 1950 marking a 100-percent increase from just two years previous, Cadillac's management was on a roll. Their follow-up trick was a limited-edition (only 532 produced) super-luxury convertible referred to as El Dorado in early press releases. Stuffed to the gunwales with luxo items and trimmed in GM Design's best dream-car styling, the pricetag was an equally stunning $7465 (the standard Cadillac Series 62 Coupe was $3571). Powered by a 210-horsepower version of "Boss Ket's" V-8, the first Eldorado was considered a real screamer. With a top speed of 116 mph, it wowed everyone from quarter-mile draggers to Bonneville racers and earned the televised honor of carrying Ike and Mamie in the 1953 Presidential inaugural parade.

A hardtop Seville model was added to the Eldorado line in '56, while the convertible was renamed Eldorado Biarritz. Lincoln's response to the ever-flashier Caddy was its $9966 Continental Mark II, a sleek two-door hardtop produced for only two years ('56-57) and selling just 2996 units. Chrysler attacked the luxo-performance arena with a vengeance, beginning with its 331-cubic-inch Hemihead 300-Series (boasting 300 horsepower) in '55 that grew to a 392-inch/375-horse/dual-four-barrel fire-breather two years later.

By '57, Cadillac styling had accelerated into hyper-drive. Aeronautic themes were the rage of the day, and the era of the monstrous tailfin took off in response. The $13,704 Eldorado Brougham was created as the ultimate in luxury (its price was the highest of any postwar American car), replete with air suspension, memory power front seat, stainless-steel roof panel, and "suicide" rear doors. Less than 1000 Eldo Broughams were built during the model's four-year run, the '59 and '60 models partially constructed by Pininfarina, in Turin, Italy (just as the Allanté would be built some three decades later).

Performance took a back seat to flamboyance until '64, when the new 429-cubic-inch V-8 joined elegantly understated bodywork to produce one of the best-looking Cadillacs ever: the Biarritz convertible. Now focused on a more youthful market, Cadillac's execs moved ahead to launch the striking front-drive Eldorado coupe in '67. Though sharing basics with the Oldsmobile Toronado, this new Caddy was no cookie-cutter car. Eldo sales jumped from 2250 in 1966 to 17,930 just a year later, prompting Lincoln to respond with its lavish (but rear-drive) Mark III in '69. By '70, with the industry's largest passenger-car production engine (500 cubic-inches/400 horsepower) under its mammoth hood, Eldorado sales had swelled to comprise 10 percent of total Cadillac production.

Sadly, the performance Eldorado was but a memory as we entered the low-lead-gasoline phase of reality in '71. Wheelbase increased from 120 to 126.3 inches, and tonnage was added in ladlefuls. The convertible bodystyle returned that year and continued through '76, ultimately receiving worldwide media hype in a tearful farewell to "the last American convertible." (Never say never, was the lesson learned.) The downsizing trend took hold in '79, accompanied by the disastrous diesel and V-8-6-4 engine variations. Fortunately, after nearly a decade of turmoil, Cadillac has now risen to reclaim its title as one of the world's premiere auto makers. This article covers the Eldorado's glory years of 1953-76.

THE CAR
THE LEGEND
THE RING

1953 - 1955

1956 - 1957

1958 - 1960

1961

1962

1963 - 1964

1965 - 1966

1967 - 1972

16 historic Corvette emblems to choose from

1973 - 1974

1975 - 1976

1977

1978 - 1979

1980 - 1981

1982 - 1983

1984 - 1990

1991 - 1993

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Corvette ring sporting the emblem and model year of 19 _____ _____
(fill in year from 1953-1993).

My choice of three initials is _____ _____ _____.

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4607

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Address: _____

City: _____ State: _____ Zip: _____

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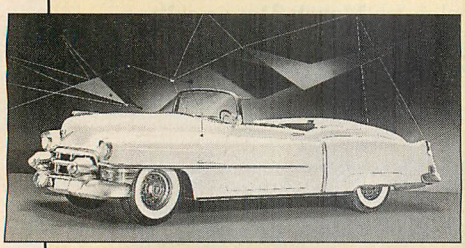
The Eldorado Years

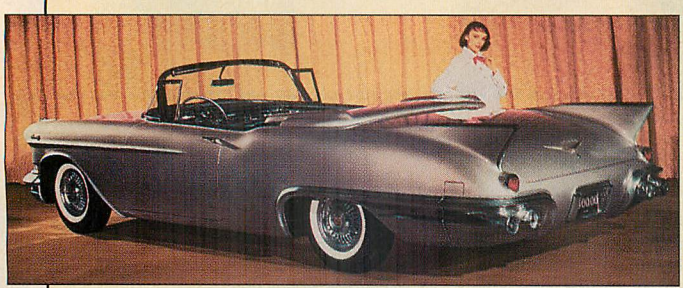
1953-1960

It shared the GM styling limelight that year with the debut of the gorgeous Buick Skylark, Oldsmobile Fiesta, and, of course, the Corvette, but the '53 Eldorado helped bring Cadillac the enviable distinction of building the fastest cars in America. "In a little over a fifth of a minute, a '53 Cadillac will hit 60 mph from a standing start. In not too much longer, it'll top 115 mph," wrote an *MT* editor in the May '53 issue. Though commanding a tariff more than twice that of a "regular" Caddy, the Eldo was responsible for boosting the division's image through sheer awe-power: It was as close to a full custom car as could be bought from a factory. In '54, the price was dropped by more than $3000, and sales nearly tripled to 2150 units. By '55, GM's stylists showcased the first dramatically finned rear fender treatments, a design element Cadillac had used since '48, but only now began to push to extremes. This yearly growth would reach its zenith in '59, then begin a decline to eventual neutering in '65. All '56 Eldos lept to action with a 365-cubic-inch/305-horsepower/dual-quad V-8 and four-speed Hydra-Matic tranny, though only the new Eldorado Seville coupe was offered with a gold-anodized aluminum grille. The pretentious Eldorado Brougham "dream car" of the '56 GM Motorama show became a production reality the following year. Its four-headlamp system (pioneered by Cadillac) was technically illegal in several states.

Chrome and glitter took center stage in '58, but horsepower was raised to 330 with the optional triple two-barrel carbs. Cape Buffalo leather and "metallic" upholstery were used extensively in the giant interior. Fortunately, the '59 and '60 Eldos were blessed with far tamer styling than the regular Cadillacs and pulsated with the added thrust of the new 390-cubic-inch/345-horsepower engine. Massive, fuel-swilling, and ill-handling, they represented the pinnacle of GM's unabashed debauchery.



The '53 Eldo (left) was a big-buck boulevardier. In '56 (below), dream car styling was the rage. The '57 Brougham was luxo-lavish.



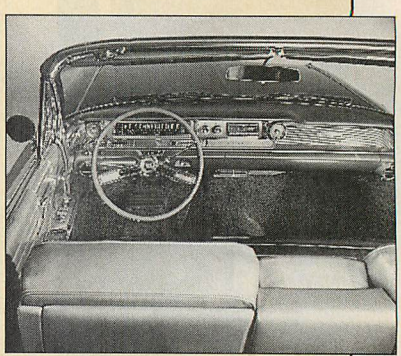
1961-1966

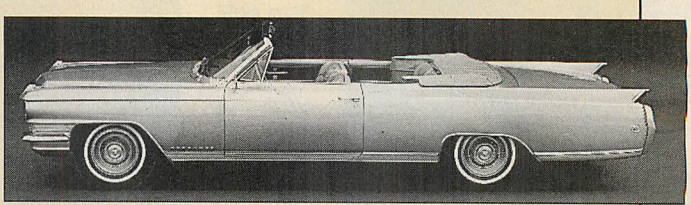
A changing of the guard in the styling studio saw the last of the Harley Earl influence fade by 1960 and gave rise to the lean and chiseled look favored by Bill Mitchell, whose future credits would include the '63 split-window Corvette and Buick Riviera. His more contemporary eye helped put Cadillac in step with the younger-thinking Kennedy-era rapidly awakening. For '61, the Biarritz convertible was the lone survivor of the Eldorado's multimodel barrage of recent years. Annual sales held steady between 1450 and 2250 units until the shocking front-drive Eldo rocked the establishment in '67.

The '61-63 Eldorados wore only minor exterior styling differences from the more traditional deVille ragtops (which outsold their most expensive brethern by a factor of 10 to one) though their interiors gushed with the special luxuries of leather bucket seats, real wood trim, and extra ornamentation. Cornering lights were pioneered by Cadillac in '62, and in '63, a new 390-cubic-inch/325-horsepower V-8 replaced the same-size/same-output engine used previously, but brought greater fuel efficiency and lighter mass.

"1964 Cadillac Designed with Youth in Mind," was the headline on the company's press release introducing the new models. The Eldo moved to become a part of the Fleetwood line, lost its rear fender skirts, and gained a gorgeous, one-year-only visage that remains striking today. The 390 engine was poked and stroked to 429 cubic-inches and 340 horsepower giving enough thrust to run 0-60 mph in 9 seconds and top out at nearly 125 mph. A new chassis and minor styling redo in '65, plus an even more subtle retrimming in '66, marked the last efforts of Cadillac on its great rear-drive Eldorado.

In dramatic contrast to the chrome-bedecked behemoths of the late '50s, the '61-66 Eldorados delivered understated class. Pictured is a '66 (top) and the interior of a '61. The '64 (below) wore the last of the tailfins, a new 429 V-8, and came sans fenderskirts.



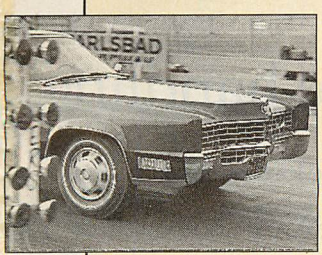


1967-1970

The time seemed ripe to launch this all-new Eldorado. At the long-lead press intro, General Manager Calvin J. Werner boasted of the division's "best sales year in history" and predicted that the Eldorado would help push total sales for '67 to even new heights (it did). Counter to traditional Cadillac thought, this new image flagship was smaller than the other models (riding on a 120- rather than a 129.5-inch wheelbase), embodied a truncated rear passenger compartment, and had the wheels on the *wrong* end providing the power. Styled with a European flair, the short-deck coupe wore a 7-inch longer hood than every other Cadillac, yet used the same 429-cubic-inch V-8 as the more common models. (Legend has it a SOHC V-12 was at one point planned to inhabit the voluminous underhood area.) Nonetheless, the 4647-pound Caddy would smoke its front tires at will, hit 60 mph in 8.9 seconds, and tackle a corner with more vigor than anything previously wearing the name. A new assembly line was built solely for Eldorado production and churned-out a leisurely 10 cars per hour. The '67's base price was $6327.

The Eldo shared E-body platforms with the front-drive Toronado and rear-drive Riviera, though used a side-mounted transmission, torsion bar front suspension, and single-leaf rear suspension with quad shocks and a beam axle. Some owners griped that the car rode too roughly, and *MT*'s test (Jan. '67) complained about a 60-0 braking distance (204 feet) that "was the same as a Chrysler wagon carrying an 840-pound payload." More power and better brakes came in '68, with the 472-inch/375-horsepower V-8 and standard front discs, but it was the 8.2-liter (400-horsepower and 550-pound-feet of torque) silken giant that forever crowned the '70 Eldorado as King of the Hill.

In '67 (below), the new front-driver was criticized by traditionalists for its "too sporty" ride. The '70 (left) boasted the world's largest displacement production car engine: 500 cubic-inches.

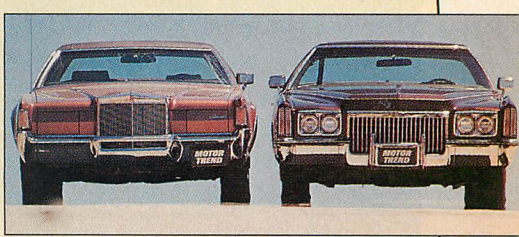


1971-1976

It was the rear-quarter opera windows that Cadillac's press release bragged up; the look that our own scribe (July '71) said "is the newest rage in Detroit." A return to empty flamboyance had obviously arrived that season, as the understated aesthetic balance of the '70 model suddenly morphed into a gangly parade float that added 6.3 inches in wheelbase and traded cornering feel for ever-greater cush. The 500-cubic-inch motor remained, but its low-lead diet forced a drop in compression and a reduction to 365 horsepower. *MT*'s ire-raising "King of the Hill" test of Eldo versus Mark III (and, eventually, Mark IV) was repeated every year from '70-74, with the Lincoln taking the crown three of those five years.

Cadillac pulled the Eldo convertible out of its five-year hiatus and plunked it down in '71 just in time to do away with the once-popular deVille ragtop. Clearly, the times were changing. By '76, we were told there'd be no more convertibles after this one. Every domestic maker except Cadillac had abandoned the open-air market by the end of '75. Contrary to popular belief, the death knell was sounded not by the dreaded Feds, but by our own lack of interest. In 1965, 5.5 percent of all new cars were ragtops. That's well over 100,000 convertibles. Ten years later, a mere handful were produced. Several manufacturers responded to the new cry of public demand by the early '80s, but Cadillac wouldn't build another convertible until the arrival of the Allanté. **MT**

The '71-76 era was a tribute to opera windows and vinyl roofs, but in '73, the Eldorado was the Indy 500 pace car.



CADILLAC ELDORADO TEST DATA

	1953	1964	1970	1976
Engine	331cid V-8	429cid V-8	500cid V-8	500cid V-8
Horsepower/rpm	210@4150	340@4600	400@4400	190@4000
Induction	4-bbl carb	4-bbl carb	4-bbl carb	4-bbl carb
Transmission	4-sp. auto	3-sp. auto	3-sp. auto	3-sp. auto
Curb weight	4660 lb	4605 lb	4721 lb	5167 lb
0-60 mph	12.8 sec	9.2 sec	8.8 sec	11.8 sec
1/4 mile: sec/mph	18.4/NA	17.0/80.2	16.4/85.9	17.8/76.0
Price as tested	$7750	$6915	$8858	$13,068

Just how exceptional are the handling

Maybe we're guilty of exaggeration. But we won't get any arguments from the editors of *AutoWeek*, who said of the Nissan® Altima® SE, "This sedan rides and handles like a BMW 2-Series, if there were a BMW 2-Series."*

Another Bavarian comparison came from *Motor Trend*, who said, "Once you consider this Nissan's spunky acceleration, taut handling, Corvette-level braking and top-flight driving environment, it might well also be a smart alternative to dream cars like the $30,000 BMW 325i."**

And quite a bit more economical, too. In addition to an eager 150-horsepower, 2.4-liter DOHC engine, 4-wheel disc brakes and a sport-tuned suspension, the Altima SE

*Nissan Motor Corporation U.S.A. Smart people always read the fine print. And they always wear their seat belts. Nissan Altima SE model shown. *AutoWeek,*

abilities of the Nissan Altima SE?

offers the type of amenities normally found on more-sedate luxury sedans. Like power windows, power door locks, a four-speaker AM/FM cassette stereo and a sophisticated four-sensor Anti-lock Braking System.†

But perhaps *Sports Car International* put it best and most succinctly when they flatly declared, "There is nothing in the same league at anywhere near the price."††

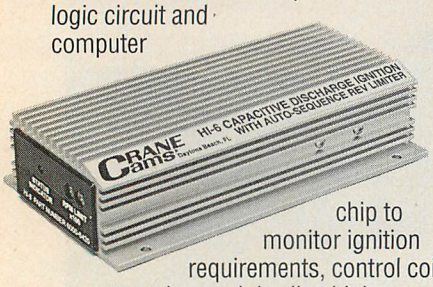
For information, call 1-800-NISSAN-3, ext. 474 or arrange a test drive at your Nissan Dealer. Of course, if you're really intent on putting the Altima SE through its paces, we suggest you bring your own cones.

It's time to expect more from a car.™ NISSAN

*July 12, 1993. **Motor Trend, October 1992. †Optional equipment on the Nissan Altima SE, GLE and GXE. ††Sports Car International, August 1993.*

Crane Cams® Add-On Performance You Can Feel!

Unlock the full potential of your performance car with Crane Cams' bolt-on performance parts. With a few hand tools and Crane's high-tech yet easy-to-install components, you can transform your Mustang or Camaro V8 from an also-ran to the leader of the pack. **Take, for example, Crane Cams' high-intensity ignition modules** that utilize a sophisticated logic circuit and computer



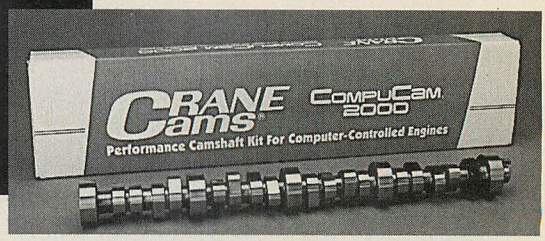
chip to monitor ignition requirements, control coil current, and extend dwell at high rpm, delivering 25% more spark energy to the spark plug. Both Crane electronic ignition modules and high-output coils come with factory-compatible plugs that enable quick and dependable connections. Installation time: No more than an hour.

Another easy bolt-on with big results is Crane's roller fulcrum rocker arms. One of the largest parasitic drags in a modern engine is valvetrain heat producing friction. You can add 15hp just from the reduction in friction with rollerized rocker arms and up to 25hp when longer-than-stock ratios are used that increase valve lift and your engine's high-rpm breathing capabilities. This is a great Saturday-afternoon project.

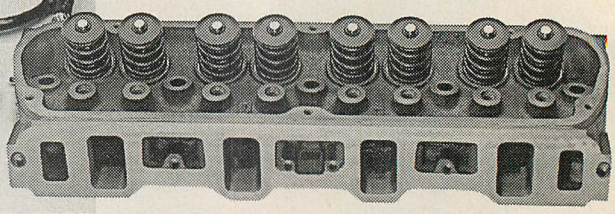
You've probably heard that you can increase your car's performance by changing the computer "chip." Many companies offer these replacement chips, but **only Crane Cams offers for Mustang's the Interceptor II**, an add-on tuneable computer that allows you to easily adjust the air-fuel mixture and total timing. The

Interceptor II selectively intercepts signals from the stock ECU and changes them before they reach the engine. Adjustments are made using a hand-held keypad that lets you program and monitor changes without a laptop computer. Installation is fast and easy and can be handled in less than an hour from start to fire-up and go.

For those do-it-yourselfers who really want to unleash the performance of your computer-controlled V8, **Crane's CompuCam 2000 series of replacement camshafts can add up to 70hp and 75 lbs.-ft. of torque.**



If your engine is due for a valve job, or you just want to extract that ultimate horsepower from your small-block V8, **consider Crane's Fireball replacement cylinder heads** that come fully prepped and deliver up to an additional 100hp. All of these modifications are 50-state emission legal. In fact, Crane has hundreds of street-legal bolt-ons for just about every vehicle imaginable. For more information on Crane's complete lineup of performance equipment, please send $5.00 for catalog to:



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The refueling infrastructure for AFVs is limited, but growing. Here, a bi-fuel NGV fills up at arefueling island built by Hope Gas and the Natural Gas Transportation Company.

ALTERNATIVE-FUEL VEHICLES

Choosing a clean-fuel vehicle could become as easy as a visit to your local new-car showroom

by Ron Cogan

CLEARING THE AIR ON AFVs

The Chrysler Concorde we're driving feels and performs like its standard-issue cousins, but there's a significant difference. We're running on M85 fuel methanol just pumped at a Chevron station. So is the Ford Taurus that pulled away from the pump just ahead of us. Its driver spent a few minutes comparing notes with us and allowed that his overall experience with this flexible-fuel company car had been quite good.

Later that day, we swapped the Concorde keys for those of our photographer's Chevrolet pickup, needing the utility of its 8-foot cargo bed for the afternoon. A quick check showed the fuel-gauge needle resting at the three-quarter mark, plenty for our needs. We disconnected the nearby FuelMaker's refueling line from the truck and fired up the engine, driving away on compressed natural gas. The significance of all this hadn't escaped us. On this particular sunny and smog-shrouded L.A. day, we weren't just heading down the highway...we were driving toward a brave, new world.

There's a chicken-and-egg mentality that weaves its way through the fabric of the AFV field. It goes something like this: Manufacturers have hesitated to commit to AFVs because it's an unproved market. Oil companies aren't willing to add massive numbers of alternative-fuel pumps because there aren't enough AFVs on the road. The real dilemma is that each depends upon the other for success.

In the midst of this, fleet buyers are stepping up to AFVs in increasing numbers because they face coming state and federal mandates requiring these types of vehicles. But they're unsure of which alternative-fuel technology will prove predominant and are fearful of being stuck with yesterday's technology. What about the rest of us with room in our garage for an environmentally friendly vehicle? Most of us simply don't have a clue.

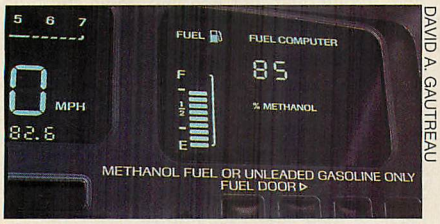
Consider this the beginning of your alternative-fuel education. Some would have us believe that AFVs are the consummate answer to our country's energy and environmental problems. Others claim that cost and technology issues leave no room for AFVs in the marketplace. Trying to understand this field is confusing because such diverse messages are offered by seemingly credible sources. As you might guess, there's a middle ground that's probably most representative of the truth.

This is a classic example of industry meeting politics. Some feel strongly that government has no business interfering with the marketplace through mandates, manipulation, or incentives. Many in this camp consider motor-vehicle air-quality requirements spelled out in the federal government's Clean Air Act Amendments of 1990 and California's low-emissions vehicle program as two such villains. Others view air-quality and energy-dependency issues as societal problems with a cost that should be shouldered equally by all. Federal subsidies for highways, rail, and toxic-waste cleanup are examples of this concept in action.

Perspective offers this bottom line: To get caught up in the politics of alternative fuels—

NGV Ecotrans, a joint venture between NGV upfitters and a natural-gas utility, is upfitting new vehicles to run on natural gas or LPG and be sold at dealerships.

The Ford Crown Victoria is scheduled to become the first assembly-line produced natural-gas vehicle in '95. A limited number of these NGVs already are being fleet tested.



DAVID A. GAUTREAU

A fuel sensor determines the methanol/ gasoline mixture being burned, then adjusts injection and ignition. Taurus FFV drivers are advised of the fuel mix with a digital readout.

Since upfitted bi-fuel vehicles run on either gaseous fuel or gasoline, gaseous pressure vessels are added to augment the gas tank. Cars with large trunks are a natural for this.

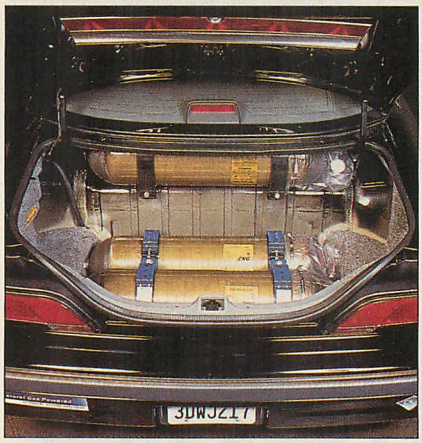
whether we're talking natural gas, methanol, ethanol, liquefied petroleum gas (propane/butane), electricity, or others—is to not only miss the point, but also the potential, of this field. Turning a blind eye to AFVs is to dismiss one of the automotive industry's most interesting and dynamic movements occurring this decade, perhaps even in the next.

A PLACE FOR EVERY FUEL

"The three major road transportation technologies—gasoline, natural gas, and electric—all have a role to play in fulfilling people's needs," points out Southern California Edison Chairman and CEO John Bryson as he speaks of bringing alternative-fuel vehicles to the mass market. But the realities of the marketplace—that the future likely holds a place for a mix of fuels—is beginning to gain broader acceptance.

This trend was recently underscored by the Southern California Gas Company, a utility actively pursuing the natural-gas-vehicle market. SoCal Gas joined Burbank, California-based Calstart, the high-profile public-private consortium that's been working toward nurturing electric vehicles.

Calstart embraced this gas utility as a member and expanded its emphasis beyond electric cars to include natural-gas vehicle development as one of the group's core goals.



Done correctly, upfitted vehicles offer an appearance that's close to factory-stock. Here, an Ecotrans-converted sedan's fuel cylinders are secreted away behind new trim panels.

Going beyond the obvious evolution of NGVs and related technologies, this new direction could find natural-gas and electric-vehicle interests working together on hybrid EVs. Since these use a small internal-combustion engine/generator to maintain battery charge and extend an EV's range, the use of clean-burning compressed natural gas to fuel this small and efficient IC engine is, well, a natural.

THE RUN TO MARKET

Steady and important advancements have been made within several alternative-fuel camps in recent years, most notably those involving compressed natural gas and flexible-fuel methanol.

"We're seeing a very healthy evolution of all of the fuel technologies," notes Paul Wuebben, Clean Fuels Officer at California's South Coast Air Quality Management District. "There's a competition that's bringing out even better environmental performance from all of them."

Cars and trucks that run on these alternative fuels are finding their way to the highway in ever-increasing numbers. As many experts predict, this is only the beginning. A recent survey of government and utility fleets by Runzheimer International found AFVs gaining broad acceptance, with fully 19 percent of all newly acquired fleet vehicles expected to run on alternative fuels this year.

Fleets provide a natural place for AFVs to ease into the market. Because the alternative fuels pack less energy than gasoline, they offer a much more limited driving range that typically falls within 100-200 miles. Limited range is less of an issue with fleet vehicles driven on predictable routes. Also, these vehicles are often fueled at central refueling facilities, an important consideration since pumps dispensing compressed natural gas, methanol, or other fuels aren't always convenient—or even available—in these early years of AFV introduction.

Out of necessity, fleets are willing to shoulder the extra cost of buying and operating early AFVs so they can move quickly toward meeting federal and state requirements. But impediments to the general sale of AFVs at dealerships remain. Who among us would pay an extra $1000-$5000 for a vehicle simply because it runs on an alternative fuel—especially if its range is less than gasoline vehicles, and alternative-fuel stations are difficult to find?

Auto makers have turned this into a non-issue with flexible-fuel vehicles. They've simply absorbed the added cost of methanol modifications to encourage sales of these cars. FFVs also overcome infrastructure limitations since they can be driven on any mixture of methanol and gasoline, or ethanol and gasoline in specially prepared E85 variants.

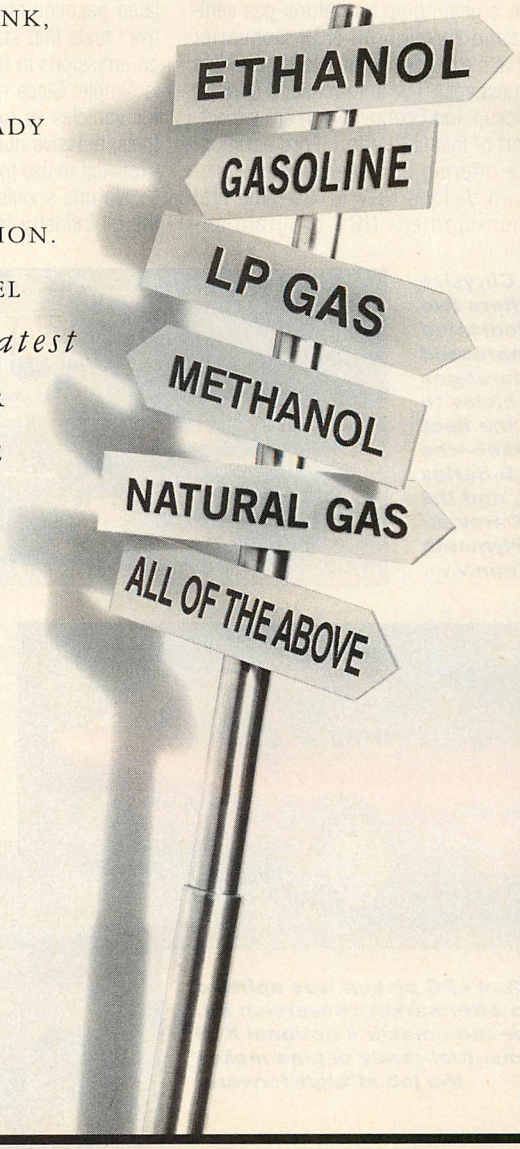
The immediate future for methanol cars is

The fuels of the future: Which way should we go?

THERE ARE NUMEROUS ENERGY FORMS AVAILABLE TODAY WHICH COULD EASE OUR DEPENDENCE ON GASOLINE AND FORD IS ACTIVELY DEVELOPING THE TECHNOLOGY TO UTILIZE THEM.

FORD HAS DEVELOPED VEHICLES THAT RUN ON NATURAL GAS, LPG (LIQUEFIED PETROLEUM GAS), METHANOL AND ETHANOL, INCLUDING *flex-fuel* VEHICLES WHICH CAN BURN GASOLINE, OR A COMBINATION OF GASOLINE AND METHANOL FROM THE SAME TANK, WITHOUT THE DRIVER TAKING ANY SPECIAL ACTION. IN FACT, WE ALREADY HAVE FLEX-FUEL TAURUS' AND LPG MEDIUM-DUTY TRUCKS IN PRODUCTION.

EXPLORING ALTERNATIVE FUEL TECHNOLOGIES IS ONE OF *our greatest priorities.* THE SECURITY OF OUR COUNTRY'S ENERGY AS WELL AS THE QUALITY OF OUR AIR MAY DEPEND UPON IT.



Ford QUALITY IS JOB 1SM

quite good, particularly in California, where most FFV sales are concentrated. Chrysler is currently selling flexible-fuel Dodge Spirit/Plymouth Acclaim models and a 49-state (not California) Dodge Intrepid. A California-approved Intrepid will join the ranks next year. Ford intends to sell its M85-capable Taurus models through 1995 and to add this capability on its next-generation '96 Taurus if demand warrants it. Although GM is no longer selling its Lumina FFV and has shown no particular interest in offering an immediate replacement, it's reported to be developing a 2.2-liter four-cylinder methanol-compatible engine for use in a '97 model compact car or light truck.

A major change of direction on the part of several auto makers, upfitters, and at least one natural-gas utility is making CNG vehicles just as versatile as their FFV counterparts. GM has signed up IMPCO Technologies to do bi-fuel NGV upfitting near a number of its production plants, with the aim of offering fully warranted natural-gas cars and trucks at GMC and Chevrolet dealerships. NGV offerings are expected to include the Chevrolet Corsica, Caprice, and pickups capable of running on either gaseous fuel or gasoline.

Ford also is gearing up for natural-gas vehicle production through an NGV Converter Program that's expected to be brought on line within the next year. The auto maker's popular F-Series pickup and Econoline van are expected to be part of this NGV effort. Ford additionally will be offering an assembly-line-produced Crown Victoria NGV in '95—the first factory (non-upfitted) NGV program announced by any auto maker.

One of the most innovative AFV programs to emerge recently is NGV Ecotrans, a joint venture between SoCal Gas and upfitter NGV Systems. The company is using aftermarket conversion systems to produce bi-fuel natural-gas and LPG-powered vehicles that meet stringent California Air Resources Board standards. NGV Ecotrans is offering a 36-month/36,000-mile warranty on their NGV products.

A second joint venture with PAS, Inc., the GMC Typhoon-upfitter previously contracted to assemble GM's dedicated natural-gas pickups, has formed Ecotrans Vehicle Industries. EVI is upfitting dedicated and bi-fuel vehicles to be sold at selected dealerships and carry a full factory new-car warranty. Typical bi-fuel upfitting adds $2000-$3000 to a vehicle's costs, although federal and state tax credits now eliminate most of this added cost.

ALTERNATIVES FOR THE FUTURE

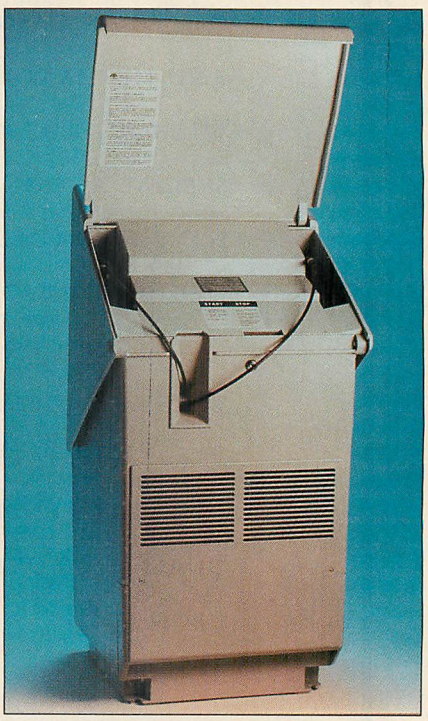
We'd be remiss if we didn't mention reformulated gasoline and diesel, two more "alternative" fuels that stand to make a major impact on emissions in the coming years. The reason is simple: Since no modifications are required for vehicles to run on these cleaner-burning fuels, massive numbers of cars and trucks are expected to use them.

"No one should underestimate the ability of the oil industry to improve its own product," says SCAQMD's Wuebben. "While we don't anticipate that reformulated gasoline will be as clean as methanol, it will certainly be a much more improved product compared to conventional gasoline."

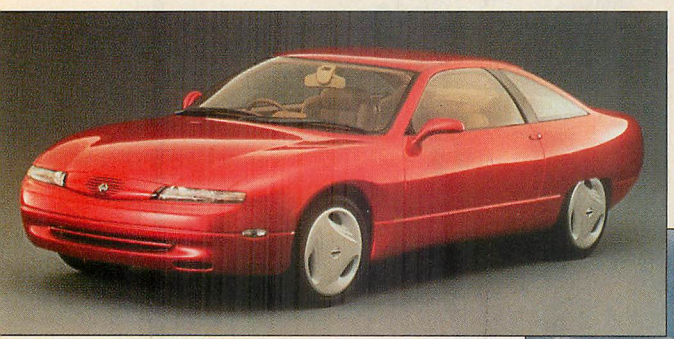
But the downside to alternative-fuel proponents is obvious: Though these reformulations do help improve tailpipe emissions, the base product is still refined from oil, contributes to energy dependency, and its use affects our negative balance of trade.

It appears that the future for alternative-fuel vehicles may be very bright. Advances are being made. Commitments are beginning to come from auto makers. Infrastructure is being built. And, very important, fleet purchases are significantly increasing, which means a much greater availability of AFVs for general sale at dealerships. We can only assume that the array of AFV models will expand in the years ahead. This means we'll be able to choose cars that not only offer the style and performance we most desire, but the environmental characteristics important to us as well. MT

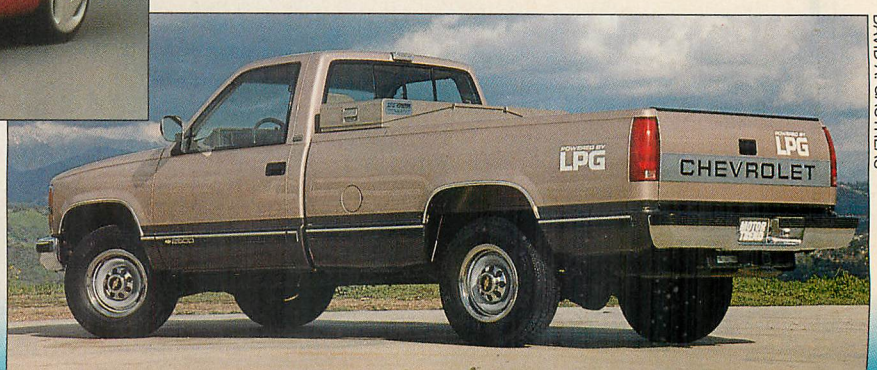
Chrysler offers two dedicated compressed natural-gas vehicles to service the fleet market—the Dodge B-Series Van, and the Dodge Caravan/ Plymouth Voyager minivan.



Small appliances like the FuelMaker can be used to refuel an NGV at home. This device, which increases low home gas pressure to 3000 psi, refuels an NGV from empty overnight.

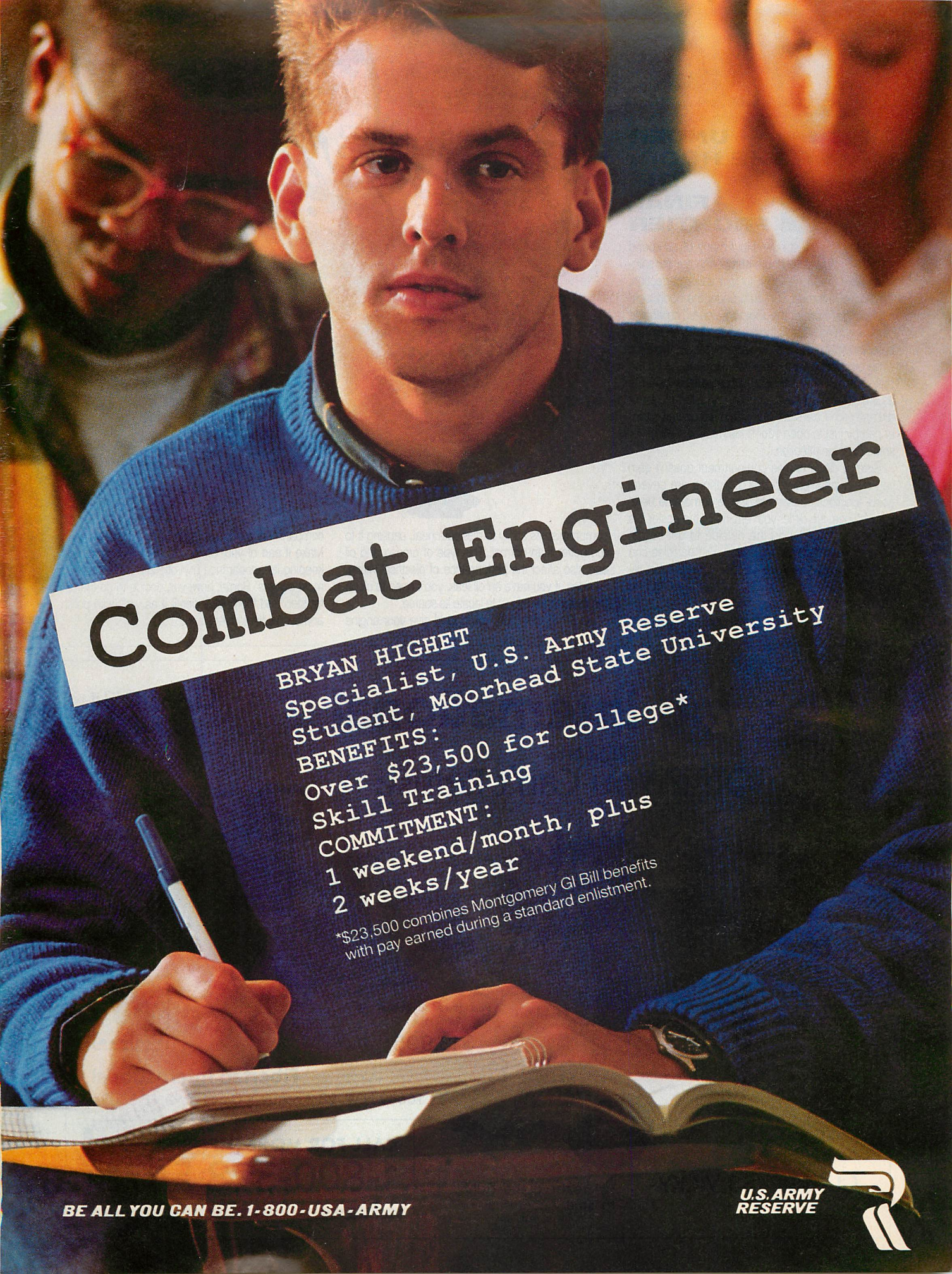


Although the Big Three are leading the AFV charge, Japanese and European auto makers also are involved in AFV R&D, exemplified by Nissan's Tri-X FFV concept car.



This bi-fuel LPG pickup was upfitted with an aftermarket conversion kit. The auto maker's optional KL5 gaseous-fuel-ready engine makes the job straightforward.

DAVID A. GAUTREAU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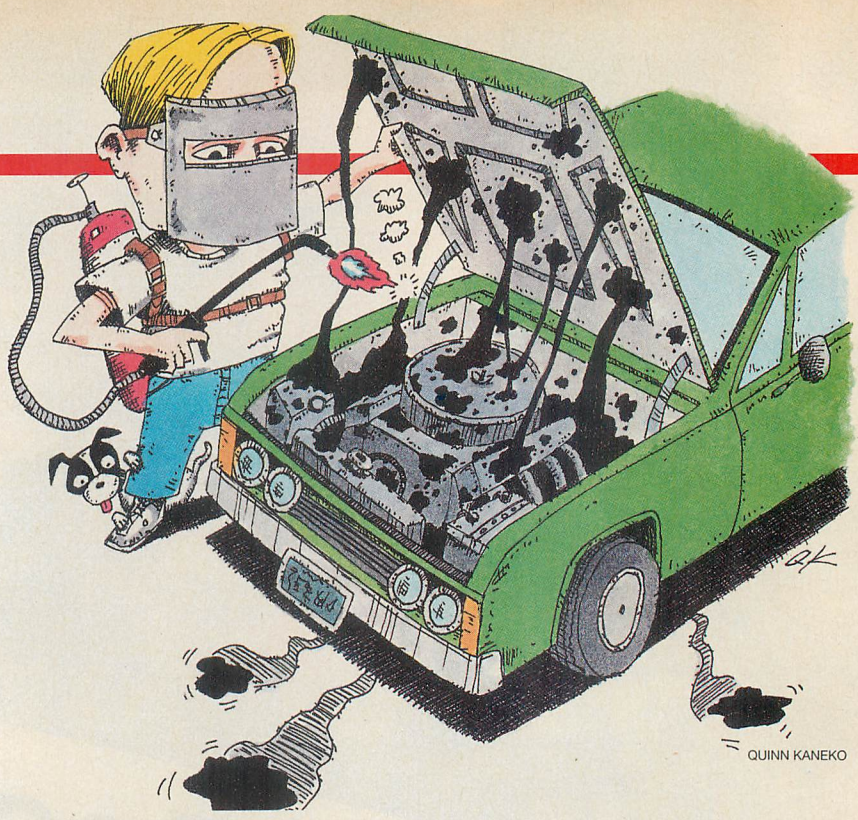
CAR CARE

BY RIK PAUL

UNDER THE HOOD: THE FINAL FRONTIER



QUINN KANEKO

Be honest now. How many of us spend countless hours pampering our car's finish, polishing it to mirror-like perfection, only to leave the unseen area under the hood looking like the return of the *Exxon Valdez*. The engine block is coated with oil, the crusty remains of unidentified spilled liquids sit in discolored hollows, there's a white powdery substance growing like fungus on the battery, and the entire engine compartment seems as if it's been texture-coated with a uniform layer of dirt and grime. Let's face it, if you need a hand cleaner nearby just to open your hood, maybe it's time for some overdue attention.

Sure, a clean engine compartment doesn't earn you many peer envy points, but there are several good, functional reasons to devote some time here. For instance, the dirtier your engine is, the easier it is for foreign material on the outside to get inside, where it can do some real harm. Dirt particles can drop in when you pull the dipstick from its tube, remove the lid from the brake or power steering fluid reservoirs, pull a spark plug, and so on.

Thick, built-up dirt and grime on the engine can compromise its ability to dissipate heat, causing it to run hotter than normal. This type of grease and oil can also affect the performance of electrical wiring. Besides, if you have an oil leak, you'll need to clean the motor anyway just to locate its source.

As a rule of thumb, you should give your engine compartment a good going-over about once a year. Make it part of your spring-cleaning routine. Simply keeping its appearance non-offensive is enough for most owners. Some, however, decide to go the extra step and thoroughly detail it as well, with polish and even selected repainting.

Fiberfab International

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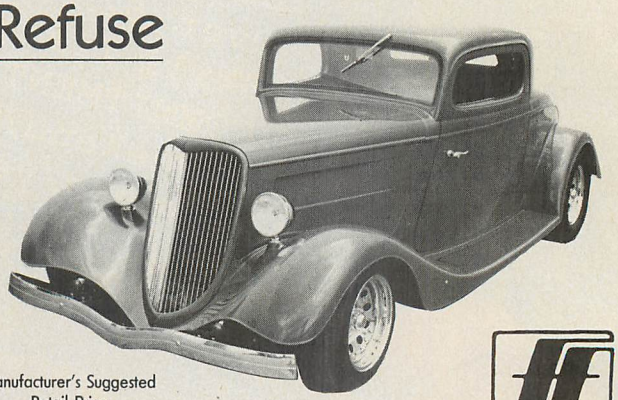

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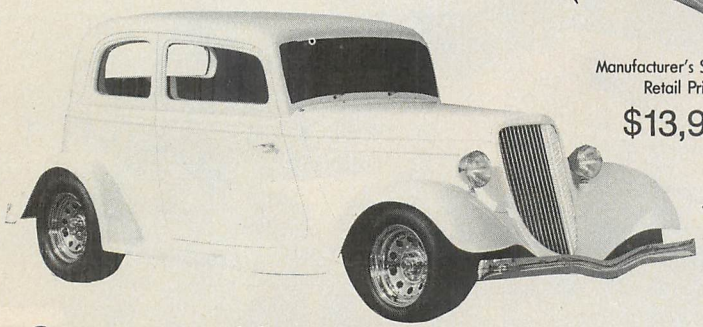

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CAR CARE

CLEANING UP

There are a few different routes you can take to do a basic clean-up. Probably the most common method is to use a hose and spray-on engine degreaser, available at any auto-parts store. One drawback to doing this in your own driveway is that it can leave quite a mess under the vehicle, especially if there's a lot of grease and oil on the engine. Another favorite site is the local coin-operated car wash. The standard high-pressure hose, coupled with an engine degreaser, will do a good job, plus many coin-ops now have an engine degreasing mode for just this purpose.

Still another alternative is to turn the car over to a professional detailer and have the engine steam cleaned. If you're looking at a thick layer of caked-on grease and dirt, you may want to think seriously about this option, not only to save yourself work, but to avoid leaving a memorable mess in your wake.

It's usually preferable to clean the engine while cold to avoid the possibility of burning yourself on hot parts. But if the engine has a lot of caked-on grunge, you may want to warm it up for a few minutes to help the degreaser do its job.

Preparation is important. You don't want water getting into places it doesn't belong. For engines with either a carburetor or throttle-body fuel injector, remove the air cleaner and slip a plastic bag (preferably a thick ply, like a food storage bag) over the carb or fuel injector opening. Secure it with tape so no water seeps through. On models with multi-point fuel injection, tape plastic over the air intake opening. Do the same with the distributor, if so equipped, as well as any other major electrical components or obvious openings. If you need to remove or disconnect any wires or hoses, first label them with a piece of tape and marker so you remember where they go. Don't forget to plug any openings in the hose connections.

While wearing eye protection, spray the degreaser liberally onto the engine, firewall, inner fenders, and inside the hood (unless insulation is attached). Allow the degreaser to sit for the recommended period of time, as described on the label, usually about five to 10 minutes. If necessary, use a brush to work it into heavy deposits. A toothbrush works well for tight places. Next, rinse the degreaser off with a hose. A high-pressure spray attachment will do the best job. Avoid spraying the water stream directly at the components covered with plastic or tape.

After rinsing, you may notice a greasy film left on the engine components. This can be removed by filling a bucket with soap and water (car-washing soap or liquid dish-washing detergent will work fine) and doing a once-over of the engine compartment with either a sponge or wash mitt. Again, rinse everything thoroughly. To avoid water spots, dry off everything with a towel. Finally, remove any plastic and tape, reconnect any disconnected hoses or wires, and check the inside of the distributor for moisture.

While you're here, you might want to disconnect the battery cables and clean the battery with a baking-soda-and-water solution, which will neutralize any bat-

tery acid that's formed. With everything buttoned up, start the engine and allow it to steam off any residual moisture.

SWEATING THE DETAILS

If you want to push beyond mere clean and into the realm of true detailing, there's still more you can do to spiff up your engine compartment. Use a good one-step auto polish or instant detailer product to give the inner fenders, air cleaner housing, and other glossy surfaces a good shine. Use a rubber/vinyl protectant to spruce up hoses, the firewall, and plastic parts, such as the radiator cowl.

If you're feeling really inspired, some selected repainting can work wonders under the hood. This can range from a scuffed bracket or oil pan to the engine block itself. First, take an inventory of what you want to paint, then visit the auto parts store to pick up the right colors. Several companies make heat-resistant engine enamels in various hues. In addition, Plasti-Kote markets a Clear Engine Enamel that will give either metal or rubber parts a shine without changing the color, plus help protect them from oil, gas, and grease. The company also produces a paint called Hot Paint, which can be used on exhaust manifolds, headers, or other ultra high-temperature components.

Smaller parts are painted more easily if removed from the engine. For larger parts or when removal isn't practical, the painting can be done right in the engine compartment. Either way, be sure the component is absolutely clean. Label and remove any hoses or wires that'll be in the way. Then use newspaper, aluminum foil, and tape to mask off the area around the part to be painted. Take your time. It's patience that separates a professional-looking job from a hasty amateur one.

With aerosol paint, it's better to apply several thin coats instead of one thick one. Allow each coat to become tacky before spraying on the next. When you're finished, you may want to leave the hood up for a while so neighbors can admire your handiwork—or not.

ON THE TRAIL OF A LEAK

Leaks make themselves known in various ways. Oil leaks can slowly coat the outside of an engine. Or perhaps you've noticed miscellaneous spots or puddles of liquid under your car. Your first job is to identify the type of leak and its location. By the way, water leaking from your car immediately after running the air conditioner is normal and doesn't need attention.

If you're not sure what liquid is leaking, first check all fluids in the car to see if any are obviously low. Another identification technique is to place an old sheet, newspaper, or large piece of cardboard on the ground and park the car over it. Remember that some leaks are only apparent when the engine is operating, so run the motor for several minutes, revving it occasionally. After letting it sit overnight, carefully inspect any spots that have appeared. A blue or green (or rusty) liquid indicates coolant. If it's black and slippery feeling, it's usually engine or manual-transmission oil. A red, oily liquid is automatic-transmission or power-steering fluid. And one that's clear or brown and feels squeaky between your fingers is probably brake or clutch fluid.

Once you know what type of leak you have, thoroughly clean around the general location of the suspect components. To locate an engine-oil leak, clean the entire

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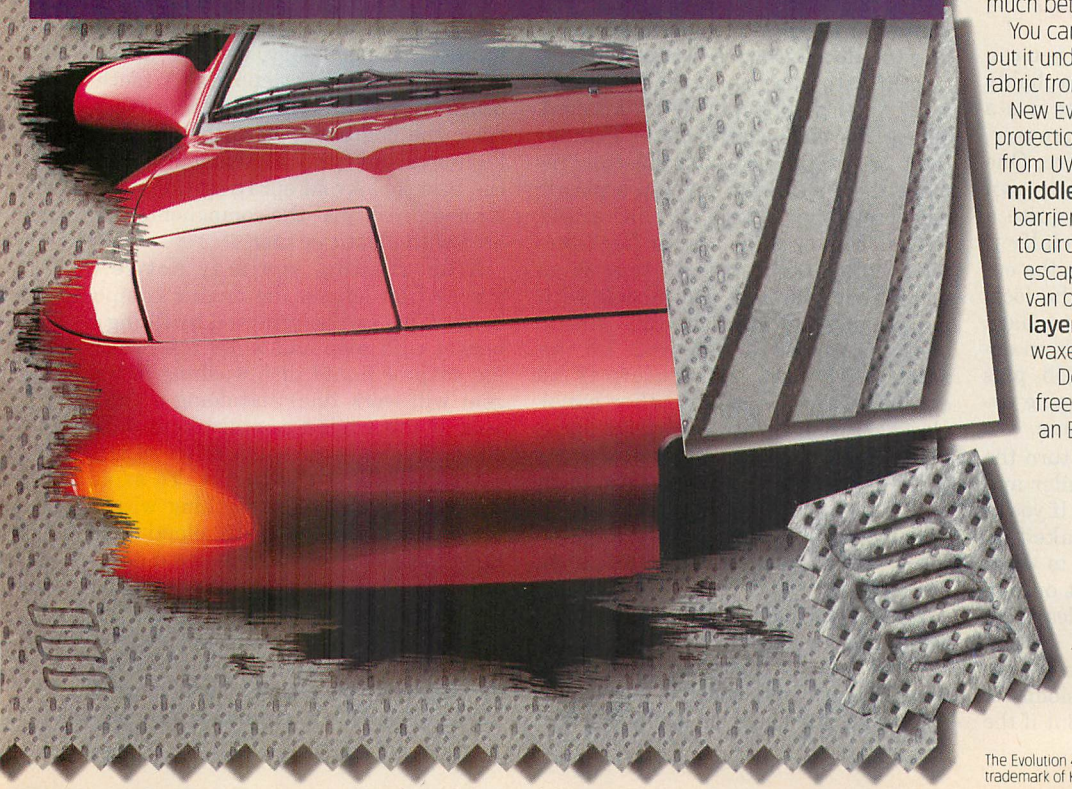

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engine as described above. This will make the exact location much easier to find.

Most engine-oil leaks are due to a bad gasket or seal. To locate hard-to-find ones, some pros use a fluorescent dye. The dye, plus the black light needed to see it, are available at better-stocked auto-parts stores. Just pour the dye in through the oil filler hole (about a half ounce per 5 quarts of engine oil). Then run the engine for about 10-15 minutes to allow it to thoroughly mix with the oil. Finally, shut off the engine and inspect it using the black light. This light will cause the dye to glow at any point of leakage.

Another more home-grown method recommended by the authors of *Automotive Engines: Theory and Servicing* (Prentice Hall, Englewood Cliffs, New Jersey) uses aerosol foot powder. With this technique, you simply spray the foot powder on the clean engine. The dark oil will stand out dramatically against the white powder.

TIRE WATCH

Capitalizing on the phenomenal success of its Aquatred, with its distinctive deep center channel, Goodyear has introduced an all-season, high-performance tire that features two deep channels in its directional tread. The result, which looks somewhat like three motorcycle tires on a common wheel, is called the Eagle Aquatred and aims at the same market as the successful Eagle GT+4, a line it'll eventually replace.

Goodyear says the Eagle Aquatred surpasses the well-liked GT+4 by 13 percent in wet traction, 4 percent in wet handling, 19 in snow performance, is 7 percent quieter, and has a longer tread life to boot. Though wide performance tires are more susceptible to hydroplaning, the Eagle Aquatred is an amazing 10 to 50 percent better at reducing hydroplaning than the GT+4. For wider tires, Goodyear says two deep channels are more effective than one at evacuating water because they're placed where hydroplaning usually begins. The company's Formula One rain tire uses such construction.

Improvements in wet performance usually require reduction in ultimate grip in the dry, but the Eagle Aquatred's computer-designed tread pattern and use of new polymers allows improved wet grip while maintaining the GT+4's dry traction and losing only an unnoticeable 0.5 percent in dry handling.

The new Eagle Aquatred is a completely different tire than the original Aquatred. The latter—an S-speed-rated tire—was designed more for family and luxury-oriented cars, and, in addition to wet traction, focused on ride, noise reduction, and wear characteristics. The Eagle's main emphasis is on wet and dry traction and handling.

For the tire's introduction, Goodyear organized a back-to-back comparison on a wet autocross course between Eagle Aquatreds and Eagle GT+4s mounted on Ford Mustang GTs. In the wet, the Aquatred seems to have a decided advantage over the GT+4 and is especially better at reducing wheelspin. Initially, the H-speed-rated Eagle Aquatred, built in Goodyear's Union City, Tennessee, plant, will be available in 11 55- and 65-aspect ratio sizes and will be priced to match GT+4s.

When the Eagle GT+4 was introduced, many automakers scoffed at the need for an all-season performance tire. Now the GT+4 is offered as original equipment on many sporty cars. Expect the Eagle Aquatred to continue and expand that trend.

—*Mac DeMere* MT

Goodyear's popular Aquatred tire has now spawned the Eagle Aquatred, a high-performance tire that uses two deep channels to improve wet-weather traction.

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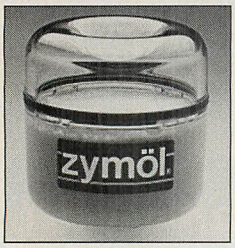

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Leon Kaplan hosts a show on 790 AM KABC Talk Radio in Los Angeles. Write to: The Motorized World of Leon Kaplan, *Motor Trend* magazine, 6420 Wilshire Blvd., Los Angeles, CA 90048-5515.

Q I recently bought a used '91 Toyota MR2 Turbo with 16,000 documented miles. However, there seems to be a problem with the car. It doesn't run straight on road grooves; instead it swerves from side to side. It feels dangerous at high speeds. I took the car to a local dealership to check the suspension. They said it was natural for a car with wide wheels, such as the MR2, to swerve on road grooves. I'm skeptical about their diagnosis.

Mike Vang
Denver, Colo.

A **A "proper" wide wheel/tire combination should improve the handling characteristics, not worsen them. I'd look for a loose component in the steering and/or suspension system. Since your car is a mid-engine design, also check the rear suspension, especially if the vehicle had any clutch or transmission work done recently. Have someone at an alignment or suspension shop check on the above areas.**

Q I have an '88 Mazda RX-7 Turbo anniversary model with 42,500 miles. Several months ago, I began to feel an engine vibration at 2500-3000 rpm. The vibration occurs while driving or sitting in neutral. The dealer checked the engine mounts. He's unable to diagnose the problem, and continued analysis would be difficult and expensive.

Patrick Kurtz
Rochester, N.Y.

A **Since the vibration occurs either in or out of gear, your problem is centered in the engine in one of the components operated by the drive belts (as opposed to the drivetrain). To locate the cause, remove all the drive belts from the engine. Then, by reinstalling the belts one at a time and briefly running the engine (without driving), you can check whether it's the water pump, alternator, or power-steering pump that's causing the vibration.**

Q I'm the second owner of an '86 Pontiac Firebird V-6 with 71,000 miles. It's been experiencing leakage with the T-top. The local sunroof specialty shop wants $600 to realign the doors, glass, and T-top assembly. I've tried an inexpensive fix by using self-adhesive weather stripping. This helped some, but rainwater still gets inside.

Zachary Gooch
Bellaire, Ohio

A **I'm very familiar with this problem and (through the help of GM) have successfully resealed an F-body T-top. Service kits are available through your Pontiac dealership. T-top weather strips with drain provisions are included in one kit. Another kit includes replacement parts for T-top sealing strips. Don't attempt this repair yourself; see your local dealer.**

Q I own a '92 Buick Century with the 3.0-liter V-6 motor. It has a constant coolant-loss problem. A major service manual states that there was a bulletin issued on how to solve the problem. However, I've been unable to obtain a copy of the bulletin from either the publisher or a local dealer. I've replaced hoses, the water pump, the radiator thermostat, and sensors, with no luck at all.

Jack R. Peck
Blountville, Tenn.

A **I've seen many head-gasket problems with the GM 3.0-liter V-6. Have your shop or dealer run a combustion leakage test. This can either be done electronically with an infrared machine or by using a chemical engine block test. I searched the technical service bulletin file, but found only one concerning your car. It relates to the type of**

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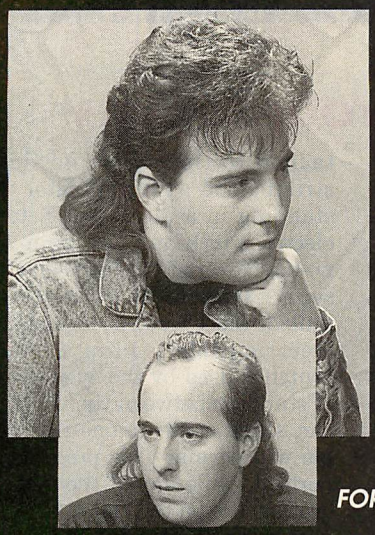

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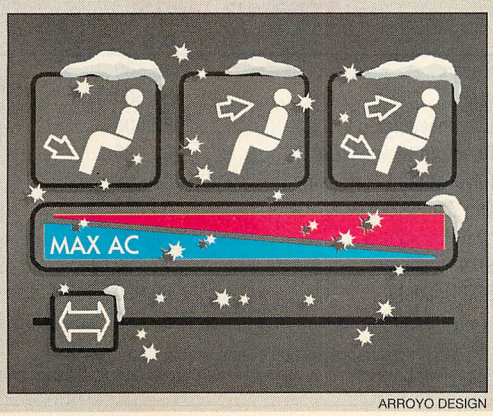
coolant used in your particular engine. The coolant has to meet a General Motors 1825M spec approved for Buick. Since you've changed the water pump, and there are no visible leaks, it's an internal engine problem such as a leaking head gasket.

Leon's Motoring Tip of the Month

You'll run the risk of expensive repairs down the road if you don't use your vehicle's air conditioner during the cold winter months. The rubber seals inside the compressor, the hoses, and other components can deteriorate from lack of use.

The refrigerant, whether its old-fashioned Freon or the new non-CFC R-134a type, actually carries oil along with it when the compressor runs (air on). The oil circulates throughout the system and is vital for proper lubrication. A 15 to 20-minute run at least once a month should be enough to keep your air conditioning in top shape and may be an additional safeguard toward protecting our atmosphere against harmful contaminants like Freon.

If you've ever had to take your vehicle in for air-conditioner repair, you know how expensive the work can be. In fact, the cost has jumped considerably within the last year because of increasingly stringent EPA requirements.



ARROYO DESIGN

Q I have a '90 Ford Taurus 3.8-liter V-6 with four-wheel anti-lock disc brakes. When making a right turn onto a sloped driveway, the right front brake attempts to lock-up and force the brake pedal back. I also hear a moaning noise. It doesn't do it all the time, just when I enter the driveway a little faster than usual. Both the dealer and a well-known brake repair shop are stumped. The brakes work fine under other conditions.

William J. Davis
Peoria, Ariz.

A **A bad wheel bearing will cause the brake disc or rotor to move and put pressure back on the brake caliper, causing you to feel it in the brake pedal. A bad bearing could also cause the brakes to lock-up. The factory changed the brake rotor design on the '86-91 Taurus and Sable and '88-91 Lincoln Continental. A new-design full-cast front disc rotor replaces a composite rotor that previously was standard. If the new cast rotor isn't installed on both front wheels during the necessary rotor replacement, you'll have a problem. Check wheel bearings and the type of rotors on your car. You may want to seek out another brake shop.** MT

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INVESTMENTS

BY ROBERT J. GOTTLIEB

WATCH YOUR WINCH

Unfortunately, the trailer has become an important and integral part of the collector car world. This is true whether you own a Model T or a classic. There are lots of inconsistent drivers out there traveling at 65 to 75 mph who don't realize that an old car traveling at 25 mph is almost a stopped obstacle.

In many areas of the country, a trailer is a necessity. But driving an oldie up a trailer ramp is tough on the clutch. It's also difficult to center the car for proper tongue weight. So most owners equip their trailers with a winch, which can save clutches and move a car an inch at a time. Though helpful, these devices can become extremely dangerous to man and machine. Few people realize the tremendous forces placed upon a winch cable or axle strap, especially when a car is being pulled up a ramp.

We recently observed a near-fatal accident when an axle strap broke just as the car was going up the incline. The strap remnants and the heavy hook attached to the cable end flew back, striking the winch operator who was standing in a direct line between the electric winch and axle strap. That's a no-no. Never stand between the power source (winch) and the object being pulled. Most electric winches have an electric cable leading to the in/out switches used by the operator. Instead of standing between the winch and the car, stand as far to one side as the cable will permit. This precaution is important while any of the wheels (front or rear) are on the ramps. Once the car is in or on the trailer, the stresses are minimized, and final adjustments can be made in relative safety.

Cables, straps, and tie-downs fray with use. Inspect them frequently and buy the best equipment you can get. Some cables, straps, and tie-downs are intended for use with a maximum load of 2500 pounds. Some are intended for loads of 10,000 pounds. This is also true of the "D" rings in the trailer into which the tie-downs attach. Make sure your equipment is strong enough to handle your needs. The difference in price between the best and the worst is minimal.

KRUSE INTERNATIONAL AUCTION UPDATE

TOP 10 SALES

VEHICLE	PRICE	LOCATION
'89 Porsche Speedster	$49,440	Dallas, Texas
'75 Rolls Royce Corniche Convertible	40,170	Dallas, Texas
'61 Chevrolet Corvette Convertible	27,810	Dallas, Texas
'57 Oldsmobile Rocket 88 Convertible	27,810	Dallas, Texas
'91 Phantom Trans Am GTA	21,630	Daytona Beach, Fla.
'60 Jaguar D Type LeMans Race Car Replica	21,630	Daytona Beach, Fla.
'47 Lincoln Continental V-12 Convertible	21,115	Mt. Pleasant, S.C.
'66 Ford Thunderbird Convertible	21,115	Dallas, Texas
'57 Chevrolet Corvette Convertible	19,828	Dallas, Texas

TOP 10 BIDS

VEHICLE	BID	LOCATION
'48 Tucker 4-dr. Sedan	$278,100	Dallas, Texas
'28 Hispano-Suiza	154,500	Mt. Pleasant, S.C.
'27 Stutz Blackhawk Speedster	133,900	Mt. Pleasant, S.C.
'36 Rolls-Royce Phantom III Town Car	109,180	Mt. Pleasant, S.C.
'79 Rolls-Royce Silver Wraith Limousine	108,150	Mt. Pleasant, S.C.
'15 Simplex Touring Car	104,030	Mt. Pleasant, S.C.
'04 Columbia Landau Brougham	92,700	Mt. Pleasant, S.C.
'28 Chrysler Imperial Roadster	92,700	Mt. Pleasant, S.C.
'73 Duesenberg SSJ Roadster	66,950	Mt. Pleasant, S.C.
'17 Winton 4-dr. Touring Car	61,800	Mt. Pleasant, S.C.

(Prices reflect auction events held in November 1993)

For more collector-car information, contact Kruse International, 5400 County Road 11-A, Auburn, IN 46706; 800/968-4444.

THE REAL THING

Every existing car has two prices. Dealers have to make a profit, and auctioneers do, too. Prices at auctions and in dealer showrooms are almost universally higher than prices asked by true hobbyists. In some cases, there's as much as a 50-percent difference. There's another good reason to buy from a hobbyist: You can learn the history of the car, how long it's been owned by the seller, and how many club tours it was driven in. Hobbyists tend to take care of their cars. Most dealers pay more attention to cosmetics than mechanicals. Auctioneers are at the mercy of sellers who may or may not give authentic information.

"VINTAGE" RACE CARS

An alarming number of phony vintage race cars are being built today. For example, remember the two-man Studebakers that ran at Indy? They're easy to recreate because they were built from factory stock frames and engines. Just take an old sedan or coupe, discard the body and fenders, fill in the fender brace holes, and fabricate a simple body from the cowl on back.

At a recent West Coast swap meet, there were three reproductions of vintage race cars primed and ready for paint. A large East Coast meet was selling identical repros of the same cars, plus handsome reproductions of later-model Indy cars and chassis. The aluminum bodies were fantastic. The decals and contest-board metal tags were well made and available through the mail. This is great for those who wish to "play," but what about future-generation collectors?

TIP OF THE MONTH

Always register a collector car *before* doing any restoration. If your state requires a visual inspection, take it in (preferably on a trailer), but make sure it looks terrible. This is especially important in states that increase the value *after* improvements and in those that use a guide to establish value. A dirty, unrestored car can easily qualify for number four or three condition simply on the basis of appearance and save money in registration fees. MT

HONDA MAT SHOWN

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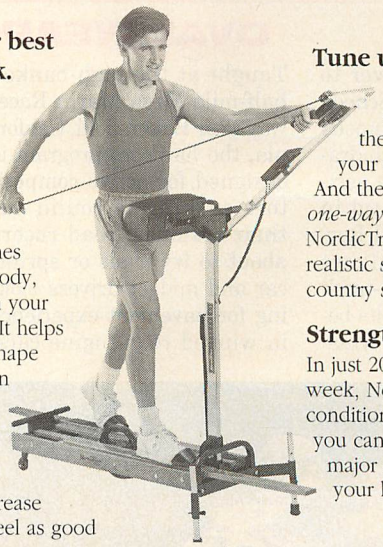

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MOTORSPORT

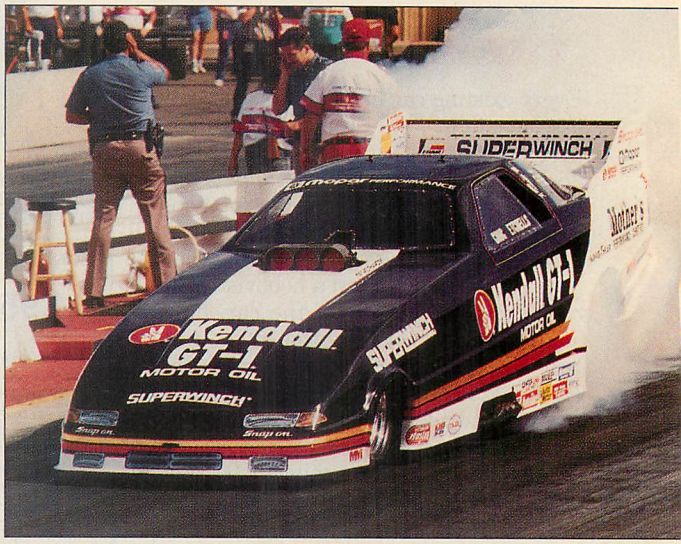
BY MAC DEMERE

ALL IN A WEEKEND'S WORK

What took Top Fuel drivers four years to accomplish, Funny Car drivers did in a single weekend. In 1988, Eddie Hill became the first Top Fuel driver to turn the quarter mile in less than 5 seconds, but it wasn't until 1992 that TF racer Kenny Bernstein recorded the first 300-plus-mph trap speed. Funny Car drivers broke both marks in three days.

During qualifying for the Sears Craftsman Nationals, an NHRA Winston Drag Racing Series event at Heartland Park Topeka, Chuck Etchells became the first Funny Car driver to make a sub-5-second pass with a 4.987-second run in his Kendall GT-1 Dodge Daytona—especially impressive considering a Funny Car weighs some 400 pounds more than a Top Fueler.

Etchells also set a then-record top speed of 296.73 mph. However, shortly afterward, Jim Epler upped the mark with a 299.90-mph run. Then, during first-round eliminations for the event, Epler penetrated the 300-mph barrier (by 0.4 mph) with his Rug Doctor Oldsmobile. The previous top-speed mark stood at 295.27 mph. Epler was the ninth driver to break the 300-mph mark; the other eight, of course, were Top Fuel pilots.

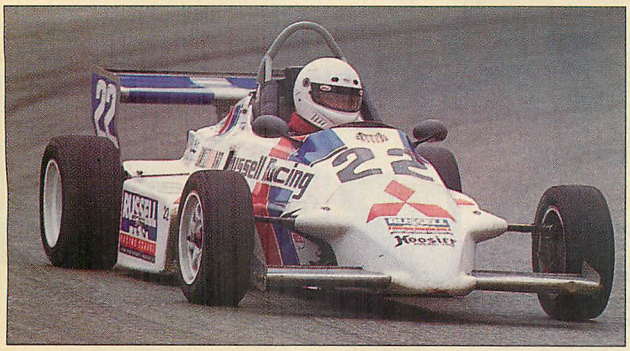


During the same NHRA Winston Drag Racing event, Chuck Etchells turned the first 4-second Funny Car pass, and Jim Epler was the first Funny Car driver to break 300 mph.

OVAL WEAPONS SCHOOL

It's oval racing's answer to the Fighter Weapons School. Similar to the Navy's famous Top Gun program, which dramatically improved the aerial-combat kill/loss ratio in Vietnam, a new Russell Racing School program allows racers to get a few oval-track missions under their belts before the green flag flies.

Taught at the high-banked half-mile Mesa Marin Raceway near Bakersfield, California, the hardcore program is designed for active competitors seeking to round out their resumés: road racers about to try ovals or sprint-car and midget drivers looking for pavement experience in winged rear-engine cars.



Russell Racing has added an oval-track program to its extensive road-racing curriculum.

Also at a recent Russell oval school: the latest brigade of the Mears gang, 16-year-old Casey and 20-year-old Clint. As a benefit to other students, their famous fathers, Roger and Rick, respectively, were on hand to offer advice.

Two prime reasons for the program: Oval racing is enjoying a resurgence, while becoming much more technical than the old strap-in-and-stand-on-it days. Backers are hoping to build major-league high-speed ovals in Britain and Germany, while, in the U.S., even the Sports Car Club of America's amateur Club Racing division, this country's bastion of road racing, is competing on ovals through its Cal Club branch. Also, drivers in United States Auto Club Midget and Sprint divisions, once *the* training ground for Indy Cars, know they need rear-engine Formula car experience if they hope to make it to the Brickyard.

The Russell oval program is open only to those who've attended a recognized racing school or have previous racing experience. Instructors include Indy Car veteran Jon Beekhuis and NASCAR Winston West competitor Tony Hunt. Cars are veteran Formula Russells running on Hoosier slicks. With 10 or more cars on the track at once, drivers get plenty of practice dealing with traffic.

One of the proud Mears papas expressed it best: "Casey and Clint are learning this season in the Russell series what it took Rick and me six years to learn."

For more information, contact Russell Racing, 408/372-7223. MT

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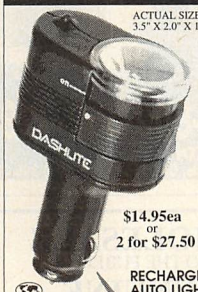

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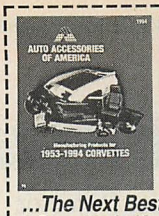

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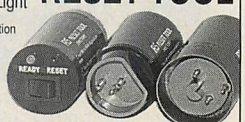

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DEH-780		DEH-730	
DEH-M990 SP		DEH-M980	
EQ-4500		FH-M75	
GM-H 44		KEH-6969	KEH-4949
KEH-3500		KEH-2500	KEH-2200 QR
KEH-M8500		KEH-M8200	KEH-M7500
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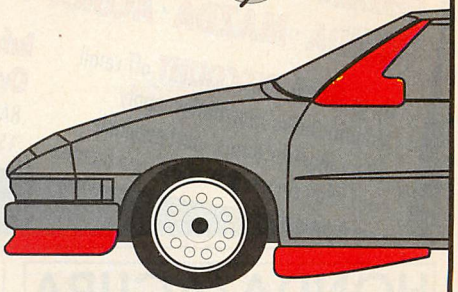

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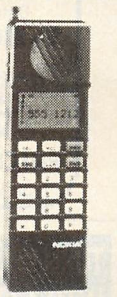

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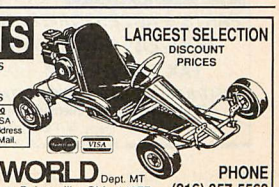

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ROAD TEST REVIEW

Model/Year	Issue	Reprint ID No.	Price Base/Tested	Powertrain Configuration	Power (hp/rpm)	Torque (lb-ft/rpm)	0-60 (sec)	Acceleration 1/4 Mile (sec/mph)	Braking 60-0 (ft)	Lateral Accel. (g)	Slalom (mph)	City/Hwy. EPA (mpg)
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Ford Escort LX-E/'92	5/92	1091	$11,933/$14,008	1.8 I-4/5M/fwd	127/6500	114/4500	9.3	17.0/81.7	138	.82	63.7	26/31
Ford Escort LX Wagon/'93	11/93(c)	7070	$10,357/$12,895	1.9 I-4/4A/fwd	88/4400	108/3800	12.8	19.1/72.9	170	.75	58.0	25/33
Geo Metro LSi/'93	5/93(c)	7043	$9,999/$11,906	1.0 I-3/5M/fwd	55/5700	58/3300	13.8	19.4/69.3	149	.76	59.6	41/46
Honda Civic Coupe EX/'93	2/93(c)	7031	$13,200/$14,520	1.6 I-4/5M/fwd	125/6600	106/5200	8.4	16.5/84.1	142	.78	60.4	29/35
Hyundai Elantra GLS/'92	3/92(c)	6004	$9,999/$11,770	1.6 I-4/5M/fwd	113/6000	102/5000	10.5	17.7/80.2	144	.82	64.3	22/29
Mazda B4000 SE/'94	1/94	2317	$11,645/$13,195	4.0 V-6/5M/rwd	160/4000	225/2500	9.4	16.9/80.2	144	.71	59.1	18/24
Mercury Tracer LTS/'93	7/93	2305	$12,023/$13,370	1.8 I-4/4A/fwd	127/6500	114/4500	10.4	17.7/80.4	151	.84	62.3	23/30
Mitsubishi Mirage Coupe LS/'93	3/93	2180	$10,299/$12,093	1.5 I-4/5M/fwd	92/6000	93/3000	11.0	18.0/76.5	138	.79	60.7	31/39
Plymouth Sundance Duster/'92	9/92	1394	$9,849/$11,368	3.0 V-6/5M/fwd	141/5000	171/2400	8.4	16.3/83.8	160	.80	63.7	20/28
Saturn SL2/'91	4/91(c)	5003	$10,295/$12,275	1.9 I-4/5M/fwd	124/6000	122/4800	8.6	16.5/84.9	145	.82	64.9	24/34
Subaru Impreza L Wagon/'93	11/93(c)	7070	$13,399/$14,644	1.8 F-4/4A/fwd	110/5600	110/4400	12.7	19.0/72.2	150	.77	60.2	24/30
Suzuki Sidekick JX/'93	5/93(c)	7043	$12,399/$12,719	1.6 I-4/5M/4wd	80/5400	94/3000	13.9	19.368.4	147	.74	58.7	25/27
Toyota Paseo/'91	7/91(c)	5008	$10,000/$12,000	1.5 I-4/5M/fwd	100/6400	91/3200	10.0	17.3/80.6	134	.87	66.9	28/34
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Chevrolet Camaro Z28/'93	8/93(c)	7052	$16,779/$19,759	5.7 V-8/6M/rwd	275/5000	325/2400	5.8	14.4/97.9	120	.86	66.1	17/25
Chevrolet Camaro/'93	9/93(c)	7065	$13,399/$17,823	3.4 V-6/4A/rwd	160/4600	200/3600	9.7	16.8/77.6	130	.80	61.1	19/28
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Eagle Summit AWD Wagon/'92	3/92(c)	6004	$13,469/$15,590	2.4 I-4/5M/awd	116/5000	136/3500	11.0	17.9/76.1	150	.72	57.6	19/24
Ford F-150 Flareside Pickup/'92	1/92(c)	5015	$14,776/$19,189	5.7 V-8/4A/rwd	200/3800	300/2800	9.4	17.1/80.4	155	.75	53.7	12/16
Ford Mustang GT/'94	1/94	2318	$17,280/$21,810	5.0 V-8/5M/rwd	215/4200	285/3500	6.9	15.7/88.5	125	.83	66.7	17/24
Ford Mustang LX 5.0/'92	9/92(c)	5075	$14,734/$17,133	5.0 V-8/5M/rwd	225/4200	300/3200	6.2	14.8/95.8	138	.84	65.2	17/25
Ford Probe/'93	9/93(c)	7065	$12,845/$17,445	2.0 I-4/5M/fwd	115/5500	124/3500	9.1	16.4/80.4	124	.78	61.8	26/33
Ford Ranger Splash/'93	8/93(c)	7052	$12,175/$16,885	4.0 V-6/4A/rwd	160/4200	225/2400	8.7	16.6/81.4	154	.84	62.9	17/22
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Isuzu Rodeo 4WD/'93	8/93(c)	7052	$17,899/$19,828	3.2 V-6/5M/4wd	175/5200	188/4000	9.9	17.2/77.9	153	.67	57.2	17/19
Isuzu 4x4 Pickup/'93	8/93(c)	7053	$13,489/$16,683	3.1 V-6/5M/4wd	120/4400	165/2800	11.1	18.0/73.9	149	.72	60.1	15/19
Mazda Miata/'94	1/94(c)	7074	$16,450/$19,430	1.8 I-4/5M/rwd	128/6500	110/5000	9.7	17.0/81.3	128	.86	66.8	22/27
Mazda MX-3 GS/'92	3/92	2167	$13,800/$15,650	1.8 V-6/5M/fwd	130/6500	115/4500	8.5	16.3/85.2	134	.87	65.9	23/28
Mazda Navajo/'91	1/91(c)	5001	$17,560/$19,970	4.0 V-6/4A/4wd	155/4200	220/2400	10.4	17.6/77.2	171	.64	54.6	15/20
Mitsubishi Expo LRV Spt./'92	3/92	2168	$11,989/$15,740	1.8 I-4/5M/fwd	113/6000	116/4500	10.2	17.4/80.1	136	.72	59.2	26/37
Mitsubishi Expo SP/'92	3/92(c)	6004	$15,209/$17,916	2.4 I-4/4A/fwd	116/5000	135/3500	11.9	18.6/74.8	141	.70	57.3	23/35
Mitsubishi Galant LS/'93	8/93(c)	7052	$13,600/$19,800	2.4 I-4/4A/fwd	141/5500	148/3000	9.4	17.2/83.6	140	.79	61.9	22.28
Nissan Altima SE/'93	2/93(c)	7031	$16,524/$19,494	2.4 I-4/5M/fwd	150/5600	154/4400	8.1	16.5/84.7	116	.80	64.9	24/30
Nissan NX 2000/'91	7/91(c)	5008	$12,970/$15,090	2.0 I-4/5M/fwd	155/5600	160/4400	7.8	16.1/86.0	128	.88	69.0	23/31
Nissan Quest XE/'93	8/93(c)	7052	$17,795/$19,920	3.0 V-6/4A/fwd	151/4800	174/4400	11.4	18.3/76.6	161	.73	57.1	17/23
Nissan SE V-6 King Cab/93	8/93(c)	7053	$16,200/$19,579	3.0 V-6/5M/4wd	153/4800	180/4000	11.6	18.1/76.6	150	.70	57.9	15/19
Nissan Sentra SE-R/'93	6/93	2259	$12,645/$16,475	2.0 I-4/5M/fwd	140/6400	132/4800	7.6	15.8/88.3	128	.82	63.1	24/32
Oldsmobile Achieva SCX/'92	2/92(c)	6003	$15,200/$17,271	2.3 I-4/5M/fwd	190/6800	160/5200	8.0	16.2/86.3	134	.86	67.7	21/31
Plymouth Laser RS Turbo/'92	9/92(c)	5075	$14,811/$16,573	2.0 I-4 T/5M/fwd	195/6600	203/3000	7.1	15.0/91.4	123	.87	69.2	21/28
Pontiac Grand Am/'92	2/92	2173	$13,699/$16,535	2.3 I-4/5M/fwd	180/6200	160/5200	7.5	15.9/89.2	141	.86	67.2	21/31
Pontiac Sunbird/'93	5/93(c)	7043	$15,403/$17,583	3.1 V-6/5M/fwd	140/4200	185/3200	9.2	16.7/82.4	133	.76	64.4	19/28
Saturn Coupe SC/'92	3/92	1085	$11,875/$15,435	1.9 I-4/5M/fwd	124/5600	122/4800	8.4	16.4/85.9	132	.88	65.6	24/33
Saturn SW2 Wagon/'93	11/93(c)	7070	$12,295/$16,225	1.9 I-4/4A/fwd	124/5700	122/4800	9.3	17.1/81.9	134	.83	60.5	24/33
Subaru Impreza LS AWD/'93	6/93	2258	$17,199/$18,639	1.8 F-4/4A/awd	110/5600	110/4400	12.1	18.8/73.6	128	.84	62.8	25/31
Toyota Corolla DX Wagon/'93	11/93(c)	7070	$12,978/$17,553	1.8 I-4/4A/fwd	110/5600	115/2800	10.8	17.9/77.4	125	.82	60.9	25/33
Toyota T100 SR5/'93	2/93	2186	$15,718/$18,958	3.0 V-6/5M/rwd	150/4800	180/3400	11.1	18.0/76.2	182	.76	59.9	16/21
Volkswagen Cabriolet/'93	5/93(c)	7043	$18,380/$19,765	1.8 I-4/5M/fwd	94/5400	100/3000	11.2	18.1/76.7	149	.85	61.9	25/32
$20,000- $25,000												
Buick Regal GS/'92	4/92(c)	5021	$19,300/$22,609	3.8 V-6/4A/fwd	170/4800	220/3200	9.0	17.0/80.4	143	.81	59.3	18/28
Buick Roadmaster/'93	4/93(c)	7036	$24,920/$27,627	5.7 V-8/4A/rwd	180/4000	300/2400	9.0	16.9/81.7	123	.77	59.5	16/25
Chevrolet Blazer/'92	1/92(c)	7033	$19,280/$24,454	5.7 V-8/4M/4wd	210/4000	300/2200	11.0	17.8/77.4	145	.71	53.5	13/17
Chevrolet Camaro Z28 Conv./'94	10/93	2382	$16,779/$24,000	5.7 V-8/4A/rwd	275/5000	325/2000	6.2	14.5/96.2	135	.84	62.6	17/24
Chevrolet Caprice Classic/'93	4/93(c)	7036	$19,995/$24,682	5.7 V-8/4A/rwd	180/4000	300/2400	8.5	16.6/83.4	133	.82	61.7	17/26
Chevrolet Lumina Minivan/'94	2/94	2322	$16,815/$23,161	3.8 V-6/4A/fwd	170/4800	225/3200	10.4	17.3/78.3	137	.68	58.0	17/25
Chevrolet 454 SS/'93	6/93(c)	7044	$21,240/$22,219	7.4 V-8/4A/rwd	255/4000	405/2400	7.2	15.8/84.7	143	.78	60.7	10/12
Dodge Grand Caravan LE/'94	12/93	2315	$22,783/$23,951	3.8 V-6/4A/fwd	162/4400	213/3600	11.3	18.0/76.5	155	.71	57.7	17/22
Dodge Intrepid ES/'93	1/93(c)	5068	$17,189/$23,570	3.5 V-6/4A/fwd	214/5800	221/2800	8.8	16.5/85.4	132	.77	60.7	18/26
Dodge Ram Van/'94	11/93	2312	$16,486/$21,423	5.2 V-8/4A/rwd	220/4400	295/3200	9.6	17.3/81.4	166	.69	51.7	13/17
Eagle Talon TSi AWD/'92	9/92(c)	5075	$17,390/$20,325	2.0 I-4 T/5M/awd	195/6000	203/3000	6.7	15.2/89.5	126	.87	69.0	20/25
Eagle Vision TSi/'93	11/92	1572	$18,341/$24,604	3.5 V-6/4A/fwd	214/5800	221/2800	9.3	16.5/84.6	139	.80	60.8	18/26
Ford Lightning/'93	6/93(c)	7044	$18,923/$22,202	5.8 V-8/4A/rwd	240/4200	340/3200	7.2	15.6/87.4	143	.84	62.2	12/17
Ford Mustang Cobra/'93	6/93(c)	7046	$18,505/$20,811	5.0 V-8/5M/rwd	235/5000	285/4000	6.0	14.6/96.5	146	.87	64.8	17/24
Ford Mustang GT/'93	5/93(c)	7043	$20,950/$24,134	5.0 V-8/4A/rwd	205/4200	275/3000	8.0	16.1/85.1	129	.86	62.3	17/24
Ford Probe GT/'94	12/93(c)	7071	$16,015/$21,428	2.5 V-6/5M/fwd	164/6000	160/4800	7.5	15.3/87.7	117	.87	68.2	21/26
Ford Taurus LX/'94	12/93(c)	7073	$18,785/$20,355	3.8 V-6/4A/fwd	140/3800	215/2200	9.2	17.0/79.2	140	.75	61.4	19/27
Ford Thunderbird LX	2/94(c)	7077	$16,830/$20,395	4.6 V-8/4A/rwd	205/4500	265/3200	8.5	16.4/87.6	139	.78	62.1	18/25
Honda Accord EX/'94	2/94	2320	$19,750/$20,187	2.2 I-4/4A/fwd	145/5500	147/4500	8.1	16.2/85.7	125	.79	62.5	25/31
Honda Prelude Si 4WS/'92	3/92	2169	$19,520/$21,570	2.3 I-4/5M/fwd	160/5800	156/4500	7.8	15.9/88.8	133	.89	65.3	22/26
Mazda MPV/'92	5/92(c)	5023	$17,865/$22,290	3.0 V-6/4A/rwd	155/5000	169/4000	11.3	18.3/76.3	155	.75	59.6	17/22
Mazda MX-6 LS/'93	1/93(c)	5068	$18,575/$22,630	2.5 V-6/5M/fwd	164/5600	160/4800	7.4	15.7/89.3	124	.84	64.9	21/26
Mazda 626 ES/'93	1/93(c)	5068	$18,725/$21,370	2.5 V-6/5M/fwd	164/5600	160/4800	7.7	16.0/87.8	122	.79	63.7	21/26
Mitsubishi Eclipse GSX/'93	1/94(c)	7075	$21,269/$21,689	2.0 I-4 T/5M/awd	195/6000	203/3000	6.6	14.8/91.1	118	.87	66.4	20/25
Nissan Maxima SE/'92	10/92(c)	7035	$21,490/$23,185	3.0 V-6/5M/fwd	190/5600	190/4000	7.3	15.7/90.6	116	.80	60.6	21/26
Nissan 240SX Convertible/'93	5/93(c)	7043	$22,345/$23,615	2.5 I-4/4A/rwd	155/5600	160/4400	9.6	17.3/82.5	147	.80	62.5	21/26
Oldsmobile Eighty Eight LS/'92	7/92(c)	5063	$21,395/$24,501	3.8 V-6/4A/fwd	170/4800	220/3200	9.0	16.7/83.4	137	.83	62.6	18/28
Plymouth Voyager SE AWD/'92	5/92(c)	5023	$18,737/$21,530	3.3 V-6/4A/awd	150/4800	185/3600	11.5	18.4/75.4	143	.75	58.4	16/20
Pontiac Bonneville SLE/'93	3/93	2181	$19,444/$23,658	3.8 V-6/4A/fwd	170/4800	225/3200	8.6	16.5/83.7	136	.81	62.8	19/28
Pontiac Firebird Formula/'93	6/93(c)	7046	$17,995/$20,375	5.7 V-8/6M/rwd	275/5000	325/2400	6.1	14.7/97.2	123	.86	63.8	17/25
Pontiac Firebird Trans Am/'93	1/93(c)	5068	$21,300/$22,265	5.7 V-8/6M/rwd	275/5000	325/2400	6.3	14.8/97.6	116	.86	63.0	17/25
Pontiac Grand Prix STE/'91	6/91(c)	5006	$19,994/$21,669	3.4 V-6/4A/fwd	200/5200	215/4000	8.7	16.5/86.1	135	.82	59.0	17/26
Pontiac Trans Sport SE/'92	5/92(c)	5023	$16,225/$20,622	3.8 V-6/4A/fwd	165/4300	220/3200	10.8	18.4/75.4	150	.72	59.4	17/24
Toyota Camry SE/'92	10/92(c)	5059	$18,528/$22,394	3.0 V-6/5M/fwd	181/5200	195/4400	7.7	16.0/88.1	125	.80	64.9	19/26
Toyota MR2 Turbo/'93	9/92(c)	5075	$20,278/$24,113	2.0 I-4 T/5M/rwd	200/6000	200/3200	6.1	14.7/93.8	115	.91	68.0	20/27

KEY: T = turbocharged S = supercharged D = diesel 4wd = part-time 4-wheel drive awd = full-time all-wheel drive

ROAD TEST REVIEW

Model/Year	Issue	Reprint ID No.	Price Base/Tested	Powertrain Configuration	Power (hp/rpm)	Torque (lb-ft/rpm)	0-60 (sec)	Acceleration 1/4 Mile (sec/mph)	Braking 60-0 (ft)	Lateral Accel. (g)	Slalom (mph)	City/Hwy. EPA (mpg)
Toyota Xtracab SR5 4x4/'93	8/93(c)	7053	$18,318/$23,907	3.0 V-6/5M/4wd	150/4800	180/3400	11.9	18.3/73.6	151	.67	57.4	15/18
Volkswagen Corrado SLC/'92	7/92	1397	$21,840/$23,035	2.8 V-6/5M/fwd	178/5800	177/4200	6.8	15.3/92.9	129	.86	66.2	18/25
Volkswagen EuroVan GL/'93	2/93(c)	7031	$20,420/$22,740	2.5 I-5/4A/fwd	109/4500	140/2200	16.9	20.6/65.6	153	.67	57.5	17/19
Volkswagen Passat GLX/'93	7/93	2308	$21,560/$24,170	3.0 V-6/4A/fwd	172/5800	177/4200	8.5	16.6/84.7	127	.82	63.8	17/24
$25,000 - $30,000												
Acura Vigor GS/'92	3/92(c)	6004	$23,265/$25,339	2.5 I-5/5M/fwd	176/6300	170/3900	8.6	16.6/86.1	130	.81	63.6	20/26
Buick LeSabre Limited/'92	7/92(c)	5063	$20,775/$25,397	3.8 V-6/4A/fwd	170/4800	220/3200	8.8	16.6/82.7	131	.83	62.0	18/28
Chevrolet Astro LT AWD/'92	5/92(c)	5023	$18,145/$25,595	4.3 V-6/4A/awd	200/4400	260/3200	11.2	18.2/74.3	156	.71	53.8	15/20
Chevrolet Blazer K1500 Sil./'93	9/93	2381	$20,005/$26,552	5.7 V-8/4A/4wd	210/4000	300/2800	9.8	17.4/78.3	152	.73	56.9	13/16
Chevrolet Crew Cab/'92	1/92(c)	7033	$17,404/$25,089	7.4 V-8/4A/rwd	230/3600	385/1600	11.9	18.5/74.6	172	.73	57.9	N/A
Chrysler LHS/'94	6/93	2257	$29,046/$28,839	3.5 V-6/4A/fwd	214/5800	221/2800	8.7	16.5/84.7	126	.79	59.5	18/26
Chrysler New Yorker Fifth Av/'92	7/92(c)	5063	$21,874/$27,442	3.8 V-6/4A/fwd	150/4400	203/3200	9.7	17.3/79.5	150	.75	60.0	18/25
Ford Aerostar E. Bauer AWD/'92	5/92(c)	5023	$24,381/$26,269	4.0 V-6/4A/awd	155/4000	220/2400	9.9	17.4/77.0	170	.71	56.4	15/19
Ford Chateau Club Wagon/'92	1/92(c)	7033	$23,963/$25,609	5.7 V-8/4A/rwd	200/3800	300/2800	10.8	17.9/76.6	165	.68	55.2	11/15
Ford Explorer Ltd./'94	10/93(c)	7067	$27,422/$29,380	4.0 V-6/4A/4wd	160/4500	220/2200	11.0	18.0/75.9	139	.66	54.6	15/20
Ford Taurus SHO/'92	10/92	1390	$25,000/$28,125	3.2 V-6/4A/fwd	220/6200	215/4800	7.5	15.4/88.9	144	.81	62.0	18/26
GMC Syclone/'91	1/91(c)	5001	$25,500/$25,500	4.3 V-6 T/4A/awd	280/4200	360/3600	4.9	13.6/98.6	133	.82	62.9	14/17
Isuzu Trooper LS/'93	10/93(c)	7067	$26,150/$29,699	3.2 V-6/4A/4wd	190/5600	195/3800	11.9	18.5/74.7	142	.73	55.8	15/18
Jeep Grand Cherok. Laredo/'93	10/93(c)	7067	$20,884/$27,304	5.2 V-8/4A/4wd	220/4800	285/3600	9.5	17.2/80.4	133	.73	59.4	14/18
Mitsubishi Diamante LS/'92	3/92	2170	$25,639/$29,557	3.0 V-6/4A/fwd	202/6000	199/3000	9.1	16.9/85.9	136	.79	60.3	18/24
Mitsubishi Diamante Wagon/'93	5/93	2252	$22,399/$26,646	3.0 V-6/4A/fwd	175/5500	185/3000	10.1	17.5/82.2	145	.74	61.5	19/25
Mitsubishi Montero SR/'93	10/93(c)	7067	$25,900/$29,757	3.0 V-6/4A/4wd	151/5500	174/4000	12.6	19.0/72.1	146	.71	57.3	15/18
Oldsmobile Cutlass Conv./'93	4/93	2188	$22,699/$26,936	3.4 V-6/4M/fwd	200/5000	215/4000	8.5	16.5/86.2	129	.79	61.2	17/26
Pontiac Firebird Firehawk/'93	7/93	2306	$24,244/$25,810	5.7 V-8/6M/rwd	300/5000	330/2000	4.9	13.5/103.5	110	.88	64.0	17/25
Saab 900 SE/'94	12/93	2314	$27,000/$27,000	2.5 V-6/5M/rwd	170/5900	167/4200	7.9	15.8/89.0	126	.80	62.4	18/25
Subaru SVX/'92	9/92	2163	$27,250/$27,770	3.3 F-6/4A/awd	230/5400	224/4400	7.3	15.5/90.9	114	.90	66.5	20/28
Toyota Camry SE Coupe	2/94(c)	7077	$22,238/$26,777	3.0 V-6/4A/fwd	188/5200	203/4400	8.1	16.1/87.0	121	.81	64.0	18/25
Toyota Previa LE/'92	5/92(c)	7032	$21,448/$26,423	2.4 I-4/4A/rwd	138/5000	154/4000	12.4	18.9/74.7	139	.74	59.3	17/22
Volkswagen Eurovan MV/'93	11/93	2313	$21,850/$27,505	2.5 I-5/4A/fwd	109/4500	140/2200	16.2	20.4/67.7	147	.68	56.9	15/19
Volvo 850 GLT/'93	2/93(c)	7031	$24,100/$26,895	2.4 I-5/5M/fwd	168/6200	162/3300	9.4	17.3/79.5	121	.79	64.7	21/30
$30,000 - $35,000												
Audi 90 CS Quattro Sport/'93	3/93	2177	$31,950/$32,665	2.8 V-6/5M/awd	172/5500	184/3000	8.8	16.7/83.3	124	.85	64.6	17/22
Buick Park Avenue Ultra/'94	2/94	2321	$31,699/$33,519	3.8 V-6/4A/fwd	225/5000	275/3200	7.3	15.5/90.5	137	.77	59.5	17/26
BMW 325is/'93	2/93(c)	7031	$30,950/$31,775	2.5 I-6/5M/rwd	189/5900	181/4200	7.4	15.7/88.9	126	.82	65.9	19/28
Chevrolet Suburban 4x4/'92	9/92	1392	$21,559/$30,689	7.4 V-8/4A/4wd	230/3600	385/1600	11.5	18.2/74.6	156	.67	51.9	N/A
Dodge Stealth R/T Turbo/'92	9/92(c)	5075	$31,185/$32,820	3.0 V-6 T/5M/awd	300/6000	307/2500	5.7	14.2/97.3	120	.90	67.3	18/24
Lexus ES 300/'92	6/92(c)	5024	$27,450/$31,322	3.0 V-6/4A/fwd	185/5200	195/4400	8.6	16.6/85.1	124	.81	63.3	18/24
Mazda RX-7 R1/'93	8/93(c)	7050	$32,500/$33,925	1.3 R TT/5M/rwd	255/6500	217/5000	5.3	13.9/99.7	110	.97	68.0	17/25
Mazda 929/'92	6/92(c)	5024	$28,500/$33,070	3.0 V-6/4A/rwd	195/5750	200/3500	8.9	16.7/84.3	119	.84	62.9	19/24
Subaru SVX/'93	1/94(c)	7075	$34,000/$34,445	3.3 F-6/4A/awd	230/5400	228/4400	8.7	16.2/85.9	115	.85	62.8	17/25
$35,000 - $40,000												
Acura Legend Coupe/'92	6/93	2256	$38,150/$38,615	3.2 V-6/6M/fwd	230/6200	206/5000	7.5	15.9/91.7	134	.85	63.8	17/25
Alfa Romeo 164 LS/'94	11/93(c)	7069	$34,390/$35,263	3.0 V-6/5M/fwd	210/6300	198/5000	7.2	15.6/93.0	126	.81	61.4	17/24
Cadillac DeVille Concours/'94	1/94(c)	7076	$36,590/$38,126	4.6 V-8/4A/fwd	270/5600	300/4000	7.8	15.8/91.0	130	.73	60.3	16/25
Cadillac Eldorado TC/'92	3/92(c)	5017	$32,470/$37,081	4.9 V-8/4A/fwd	200/4100	275/3000	8.2	16.5/81.0	149	.78	59.9	16/25
Cadillac Fleetwood/'93	4/93(c)	7036	$33,990/$36,311	5.7 V-8/4A/rwd	185/3800	300/2400	10.0	17.5/79.5	139	.76	56.8	16/25
Infiniti J30 t/'93	2/93(c)	7031	$36,000/$36,450	3.0 V-6/4A/rwd	210/6400	193/4800	9.0	16.8/82.8	129	.79	60.9	18/23
Lexus SC 300/'92	5/92(c)	5022	$32,700/$36,772	3.0 I-6/5M/rwd	225/6000	210/4800	7.8	15.8/91.1	132	.87	64.9	18/23
Lincoln Mark VIII/'93	11/93(c)	7068	$36,890/$38,934	4.6 V-8/4A/rwd	280/5500	285/4500	7.1	15.4/95.0	142	.79	60.8	17/25
Mitsubishi 3000GT VR-4/'93	7/93(c)	7049	$37,250/$38,951	3.0 V-6 T/5M/awd	300/6000	307/2500	5.3	14.0/99.0	130	.88	66.7	19/25
Nissan 300ZX Turbo/'93	7/93(c)	7049	$37,090/$38,585	3.0 V-6 T/5M/rwd	300/6400	283/3600	5.2	13.8/103.9	125	.87	67.6	18/24
Saab 9000 Aero/'94	11/93(c)	7069	$38,235/$38,695	2.3 I-4 T/5M/fwd	225/5500	258/1950	7.4	15.7/95.3	124	.85	64.2	20/28
Toyota Supra Turbo/'93	8/93(c)	7050	$37,000/$37,000	3.0 I-6 T/6M/rwd	320/5600	315/4000	4.9	13.4/106.7	109	.98	68.5	18/23
$40,000 - $50,000												
Audi S4/'93	8/93(c)	7051	$46,850/$48,085	2.2 I-5/5M/awd	227/5900	258/1950	6.5	15.1/93.3	115	.87	62.2	18/23
BMW 540i/'93	12/93(c)	7072	$47,000/$49,705	4.0 V-8/5A/rwd	282/5800	295/4500	6.9	15.3/95.9	118	.84	63.0	16/24
Cadillac Eldorado TC/'93	11/93(c)	7068	$33,990/$42,525	4.6 V-8/4A/fwd	295/6600	290/4400	6.7	15.0/93.7	138	.79	61.0	16/25
Cadillac STS/'93	12/93(c)	7072	$42,740/$46,036	4.6 V-8/4A/fwd	295/6000	290/4400	7.2	15.4/93.2	137	.76	61.1	16/25
Lexus SC 400/'93	11/93(c)	7068	$41,400/$46,713	4.0 V-8/4A/rwd	250/5600	260/4400	7.3	15.5/92.8	121	.87	63.7	18/23
Mitsubishi 3000GT VR-4/'94	1/94(c)	7075	$40,900/$42,669	3.0 V-6 T/6M/awd	320/6000	315/2500	5.5	13.9/98.4	122	.88	63.5	18/24
Range Rover County LWB/'93	10/93(c)	7067	$49,200/$49,825	4.3 V-8/4A/4wd	200/4850	251/3250	11.1	18.1/76.2	155	.70	56.5	12/15
Toyota Land Cruiser/'93	10/93(c)	7067	$32,128/$40,340	4.5 I-6/4A/4wd	212/4600	275/3200	11.4	18.3/75.6	132	.73	60.4	12/15
$50,000 - $60,000												
Audi Quattro V8/'92	6/93(c)	7045	$53,900/$55,760	4.2 V-8/4A/awd	276/5800	295/4000	7.2	15.6/88.8	124	.82	60.6	14/20
BMW 740i/'93	6/93(c)	7045	$54,000/$56,200	4.0 V-8/5A/rwd	282/5800	295/4500	7.4	15.6/93.6	131	.79	62.5	16/22
Consulier GTP LX/'91	7/91	1032	$58,900/$58,900	2.2 I-4/5M/rwd	200/5200	200/2700	5.3	14.9/91.5	137	.90	64.7	21/27
Dodge Viper RT/10/'93	8/93(c)	7050	$50,000/$52,800	8.0 V-10/6M/rwd	400/4600	462/3300	4.5	13.2/112.1	129	.97	66.8	13/22
Infiniti Q45t/'94	6/93(c)	7045	$47,500/$51,050	4.5 V-8/4A/rwd	278/6000	292/4000	7.2	15.4/91.3	121	.85	59.7	17/22
Jaguar XJS Coupe/'93	7/93	2307	$49,750/$50,710	4.0 I-6/4A/rwd	219/4750	273/3650	7.8	15.9/89.9	125	.80	60.1	17/23
Lexus LS 400/'94	1/94(c)	7076	$49,900/$53,353	4.0 V-8/4A/rwd	250/5600	260/4400	8.7	16.3/87.9	118	.76	60.6	18/23
Mercedes-Benz 400E/'93	6/93(c)	7045	$56,400/$59,710	4.2 V-8/4A/rwd	275/5700	295/3900	7.2	15.4/94.5	124	.78	62.5	18/24
$60,000 AND UP												
Acura NSX/'93	7/93(c)	7049	$68,600/$69,330	3.0 V-6/5M/rwd	270/7100	210/5300	5.6	13.9/100.7	117	.92	65.3	19/24
BMW M5/'93	8/93(c)	7051	$60,700/$63,300	3.5 I-6/5M/rwd	310/6900	266/4750	6.2	14.6/96.7	107	.86	65.5	12/23
BMW 750iL/'93	9/93(c)	7066	$80,900/$85,775	5.0 V-12/4A/rwd	296/5200	332/4100	7.7	15.8/92.2	132	.81	61.1	12/18
Chevrolet Corvette ZR-1/'93	8/93(c)	7050	$34,595/$67,878	5.7 V-8/6M/rwd	405/5800	385/5200	5.2	13.6/106.0	117	.92	67.2	17/25
Ferrari 348 tb Serie Speciale/'93	9/93	2380	$107,300/$111,800	3.4 V-8/5M/rwd	312/7200	229/4000	5.6	14.0/100.0	122	.96	68.8	13/18
Ferrari 512 TR/'92	11/92	1574	$189,500/$195,600	5.0 F-12/5M/rwd	421/6750	360/5500	4.7	12.9/110.0	129	1.01	65.7	11/16
Jaguar XJ12 Sedan/'93	9/93(c)	7066	$71,750/$72,990	6.0 V-12/4A/rwd	301/5350	336/3750	7.5	15.9/91.5	134	.80	59.6	13/21
Jaguar XJR-15/'91	5/92(c)	5074	$1 million	6.0 V-12/6M/rwd	450/6250	430/4500	4.5	12.6/117.2	N/A	.95	N/A	N/A
Lamborghini Diablo/'91	5/92(c)	5074	$239,000	5.7 V-12/5M/rwd	485/7000	428/5200	4.4	13.2/109.6	N/A	.91	N/A	N/A
Lotus Esprit Turbo /'93	8/93(c)	7050	$66,350/$67,944	2.2 I-4 T/5M/rwd	264/6500	261/3900	4.8	13.4/105.1	129	.84	66.4	17/27
Mercedes-Benz 300CE/'93	5/93(c)	7043	$76,500/$79,180	4.0 I-6/4A/rwd	217/5500	229/3750	8.1	16.1/87.6	125	.80	59.6	18/23
Mercedes-Benz 500E/'93	8/93(c)	7051	$80,000/$81,391	6.0 V-8/4A/rwd	315/5600	347/3900	6.3	14.7/96.9	116	.84	61.0	16/19
Mercedes-Benz 600SEC/'93	3/93	2179	$132,000/$132,400	6.0 V-12/4A/rwd	389/5200	420/3800	6.5	14.8/97.6	123	.77	61.2	12/16
Mercedes-Benz 600SEL/'93	9/93(c)	7066	$129,000/$133,575	6.0 V-12/4A/rwd	389/5200	420/3800	6.6	15.2/94.6	130	.76	60.0	12/16
Porsche Carrera 2 Cabr./'93	5/93(c)	7043	$77,340/$81,479	3.6 F-6/4A/rwd	247/6100	228/4800	6.0	14.4/100.7	122	.87	65.4	16/23
Porsche 911 Speedster/'94	1/94	2319	$66,400/$71,041	3.6 F-6/5M/rwd	247/6100	228/4800	5.4	14.0/100.2	111	.91	69.3	17/25
Porsche 911 Turbo 3.6/'93	8/93(c)	7050	$99,000/$101,825	3.6 F-6 T/5M/rwd	355/5500	384/4200	4.4	12.7/112.3	120	.90	68.0	13/21
Porsche 928 GTS/'93	4/93(c)	7037	$80,920/$84,620	5.4 V-8/5M/rwd	345/5700	369/4250	6.1	14.5/99.3	128	.91	63.3	13/19

KEY: T = turbocharged S = supercharged D = diesel 4wd = part-time 4-wheel drive awd = full-time all-wheel drive

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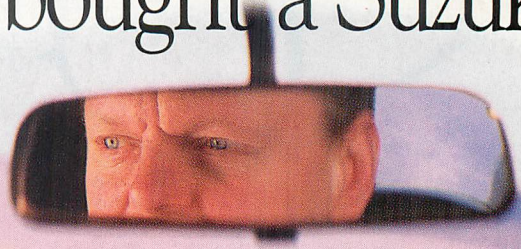
Driving rains. Jack-knifed trucks. Way too many moose.

Last year, Tom Marsh bought a Suzuki 4-door Sidekick 4x4 in Chicago, loaded up his earthly possessions, and left for Alaska, in a convoy with a few friends. When they got to the mountainous Al-Can Highway, Tom's friends decided he should lead. "They envisioned having to wait for me to catch up on every hill." Easy enough to envision: Tom was towing a 1,500-lb trailer. "Well, surprise, surprise. I could pull all but the steepest hills in 3rd gear." The Sidekick has a powerful 16-valve engine. "We ran into rotten weather, horrible accidents and moose." Moose? "Standing in the middle of the road, usually as we came around a sharp curve." Fortunately, the Sidekick also has a rear-wheel anti-lock brake system. "I cannot tell you how dependable the Sidekick is. I'll own one as long as I need a rugged vehicle. I can always be guaranteed of getting there, and enjoying the trip." Come rain, snow, sleet. Or moose.



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